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Research Article

# The attitude of potential customers toward eKYC at Malaysian Banks during the Coronavirus pandemic: perspectives of clients

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**Abstract**

This paper examines the potential factors influencing the intention to adopt the Banks eKYC system during the spread of COVID-19 and related government lockdowns based on the Technology Acceptance Model. The structural equation modelling methodology used to analyze the data. TAM was expanded in this research to include other factors such as Privacy and security, perceived costs, and perceived covid 19 Risk. The data source in this research is primary data with respondents in Malaysia who have used bank eKYC solutions. The findings indicated perceived usefulness; attitude is significant effects the consumers' intention to banks eKYC solution. The study concluded with the necessity of caring for customers regarding "Know Your Customer" procedures. It is easy to see why it is difficult for banks to make KYC clients feel comfortable. The attitude of potential customers for eKYC will make compliance affordable for adoption with new technologies currently accessible. But the proposed solutions have immense implications that need to be taken into consideration.

**Keywords**

E-kyc, Customer Onboarding, Technology Acceptance Model, COVID-19

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# Introduction

Since the dawn of the twenty-first century, authorities worldwide have enacted a slew of restrictions to prevent people and businesses from obtaining and keeping bank accounts. With all the new regulations implemented, a higher level of anxiety around money laundering is brought to bear. e.g. (Cruz, 2020; Harvey, 2004; Hughes, 1992; Levi, 1991; Sharman, 2008; Turner, 2004). The resulted in developing new procedures and systems, hiring more compliance professionals, intensive monitoring of transaction activity via the accounts, and reporting any suspicious behavior identified (Rocha-Salazar, Segovia-Vargas, & Camacho-Miñano, 2021). Banks strive to adopt procedural and technical changes to comply with new regulations (Braz, 2021; Conti-Brown, Listokin, & Parrillo, 2021). As a challenge, they face the incapacity of the banking customer to grasp information requests and follow through with account opening and maintenance obligations. Throughout banking, onboarding welcomes and brings new customers into banking ties through guided interaction and a standardized list of contacts. Onboarding is a bottom-line and competitive distinction for banks at a time when financial institutions struggle to maintain deposits, retain customers, and trust consumers during a financial industry crisis (Kaufer & Steponaitis, 2021). When a person sets up a bank account, it should verify his/ her identity and assess his / her adequacy to prevent fraud, usually by checks such as requesting and requiring face-to-face interactions. Mobile application-based services offer an attractive financial service choice, which assists in accessing financial services, particularly during a pandemic (Saueressig, Larentis, & Giacomello, 2021). It is especially true when restrictions on movement and social distance are in place and the risk of contamination from physical cash handling (Stopić, 2020; Zetzsche et al., 2020). Know Your Customer (KYC) is a method through which a financial institution or bank confirms an account holder's identity and ascertains the account's purpose, sometimes referred to as Customer Due Diligence (CDD) (Bailey et al., 2021; Yozi, 2020). CDD was established for the first time in 1990 with the Financial Action Task Force's (FATF) "40 recommendations" (Koker, 2006; Pieth & Aiolfi, 2003), which outlined guiding principles for banking regulators worldwide on how to perform CDD. As a result of concerns raised in response to banks' deployment of KYC processes to help customer due diligence, the Basel Committee established the aim of increasing customer due diligence for banks and coined the phrase "Customer due diligence for banks." In response to both the FATF and the Basel Committee, regulators enacted regulations of their own, as well as those enacted by the Basel Committee (McLaughlin & Pavelka, 2013; Shust & Dostov, 2020). Other examples include the USA Patriot Act, which created the Customer Identification Program (CIP), which attempts to provide rules and guidelines for US banks to use when they verify the identity of an account holder (McEneney, Teitelbaum, & Kaufmann, 2004). To simply state it, each bank must have a high degree of certainty about the account holder's identity and must carry out the requisite due diligence to guarantee that the information is accurate and correct. CIP programs are at the forefront of almost all AML and KYC regulations. Various governments have established their versions of the standards, while other regulators use existing CIP standards and new ones (Pamplin, 2014). The requirements in CIP's Basic Standards state that financial institutions must verify the account holder's identity. (i.e. by verifying an official government identification card or other documents with the customer's full name, nationality, and date of birth) to authenticate the individual's name, nationality, and date of birth (Tu & Meredith, 2015). This information then utilized to determine whether the account holder has adequately identified. If any difficulties occur with the account's activity, the bank will point the finger at the specific party responsible accurately. Once the client has provided documentation showing how their KYC standards meet CIP guidelines (Arner et al., 2019), the documents are analyzed for clarity, certainty, and risk the bank should have a clear understanding of the customer's identity. Any risks associated with the account throughout the account opening process would highlight. Therefore, the KYC method would stop the account from being opened until safeguards were in place to mitigate the risks or prevent the account from being formed completely. From a high-level perspective, an individual should give KYC-related information without any problems (Lipton, Shrier, & Pentland, 2016). Moreover, it should be as straightforward for any financial institution to collect and maintain as it was for them to provide the information in the first place (Christie, 2018). The documents include government-issued IDs that help verify an individual's identity, business registration certificates that verify the formation of a business, board resolutions that give the necessary authorization for account opening, and organizational structures that establish who has control and influence over account activities. These are the fundamental paperwork any individual and company should have on hand and should prepare to deliver when requested.

Unfortunately, despite the request's simplicity, there are inherent difficulties that need to be overcome by both the customer and the bank before the KYC process can complete and the account can establish (Christie, 2018; Staples et al., 2017). If it looks like a simple request on the surface, must bear in mind that there are various problems involved, and these two parties must work together to address them. Bank Nagara Malaysia defines ekyc to establish business relations and conducts customer due diligence through electronic means, which aims to investigate the acceptability level of the ekyc system using the TAM (Technology Acceptance Model). There is an urgent need to examine Malaysian customers' acceptance and readiness for an onboard using ekyc system during COVID 19, which is beneficial for individual financing needs and the business market. This study aims to develop and test an extension of the TAM model to identify the main factors that affect the intention of ekyc in the spread of COVID-19 and related government lockdowns in Malaysia. The study's findings would potentially support the banking industry and its customers. From the point of view of banks, the outcome will identify the main factor influencing consumer acceptance and offers a path to consider consumer concerns and continuously improve to gain competitive advantages. The findings will also provide industry players with better insight into a viable marketing strategy to boost consumers in Malaysia's awareness of ekyc 's onboarding as a new customer.

## Technology Acceptance Model

TAM is one of the well-known models of welcoming and using technologies proposed initially by Davis (1989). TAM describes the behavioral intentions of future users when using a technical invention, as it demonstrates the causal relations between expectations (the utility of a system and ease of use of and behaviors, actions, and the actual use of the system. Factors positively affect the attitude of adoption; TAM also argues that external influences, through indirect effects on perceived utility and perceived ease of use, influence purpose, and actual usage. TAM is a parsimonious model that can be generalized. Several studies provided empirical support (Adams, Nelson, & Todd, 1992; Taylor & Todd, 1995). The Technology Acceptance Model Rustam and Aimon (2020) has proposed to explain the effects of variables on consumer behavior and intentions (CARVALHO et al., 2020; Davis, 1989).

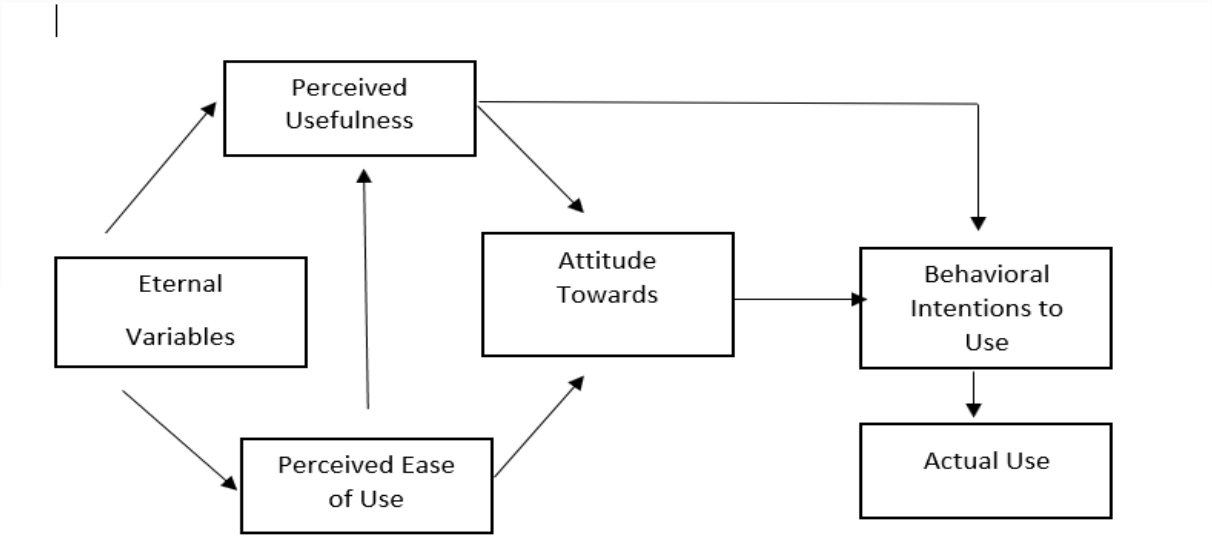


**Fig 1.** TAM Framework

## Literature Review

Many complexities plague banks when it comes to creating KYC procedures and procedures. Building a KYC framework that accommodates every consumer comes at the cost of often failing to design a straightforward procedure (Kirss & Milani, 2020). To develop a single KYC procedure that supports a diversity of clients, and the procedure becomes more cumbersome and complex (Dillenberger et al., 2019). To provide a basic example, one can insist that individuals show their identification to be considered a valid customer (Martínez & Bosque, 2013). When banks roll out

mobile apps, one quickly causes many challenges and difficulties (Shaikh, Alharthi, & Alamoudi, 2020; Yahaya & Ahmad, 2018). Is there a document in the world that a government only provides? Is the bank responsible for verifying that the document presented is legitimate? To ensure that the ID is really from a reliable or governmental body, how does the bank discover that fact? For the bank to be particular that the document submitted belongs to the person whose account number is listed, the customer must be present. Adding to the complexity, it is likely that the beneficial owner will not have the paperwork necessary for KYC compliance (Arasa & Ottichilo, 2015; Brookes, 2020; Poskriakov, Chiriaeva, & Cavin, 2020). For example, being a U.S. citizen does not legally necessitate having a government-issued identification certificate. To verify identification and nationality, and the sole option is a birth certificate. If the person does not have an account in the United States, a birth certificate will not meet local rules. The bank is put in a difficult situation as it must accept documents as confirmation of identification, but the client may have no other choices to consider. Also, clients may be pretty uncomfortable submitting identifying papers for fear of privacy (Abidin & Haseeb, 2020; Shen, Tan, & Zhai, 2007). Generally recognized identification papers are used as proof of identification, yet they are seen as secret records in many countries. According to Prosch (2009) and Siegel (2006), customers must supply a certified genuine copy of the document, and they must also be concerned that the identity document copy is protected from theft or intrusion. The effect on the clients is evident since they must wait until the matter is fixed before opening an account. In the past, opening a business account could be completed in two days. Because banks know the process might run for weeks, maybe months, they are hesitant to provide specific timetables (Coyle, 2011; Mukama, 2020). Due to the speed of business, corporate customers are susceptible to these account opening delays, which might delay any transaction that might directly impact their company's performance. Delays may cause substantial commercial problems, particularly for young organizations that need to create confidence with their business partners quickly. Additionally, the firm loses its income potential since it is no longer in its customers' financial portfolio (Erturk & Solari, 2007). As the epidemic progresses, the Coronavirus transmission becomes worse, the more costly creating an account becomes, and the higher the loss of money. Although the losses suffered were painful, both parties were equally impotent (Hampden-Turner & Trompenaars, 2021) and forced to support each other, hoping that the damage was not severe. Banks get many complaints from clients regarding the lengthy procedure and intrusive questions along with the KYC procedure (AZEVEDO, 1998). The responsibility on the clients increases as they are going through the KYC procedure. The criteria needed to open and maintain an account become more challenging to satisfy as the process progresses (Trkman, 2010). Since weeks and even months may go by as compliance managers deal with new challenges uncovered when processing customer due diligence throughout the KYC process (Johnston & Carrington, 2006), a significant amount of time is wasted throughout the process. Banking would fail if competing with other sectors for the same market niche. The banking sector keeps its market captive and slowly updates it's Know Your Customer process, which has created the perception that the business is very inefficient (Dossani & Kenney, 2003; Rust & Lemon, 2001). There is just one possible alternative for a customer—expressing their dissatisfaction and hoping that their concerns heeded above those of other customers who have complained. Nevertheless, is it the bank's fault or the regulators? Likely, they are both at fault. Regulators have imposed KYC regulations that do not accommodate many obstacles businesses confront when putting them in place. Meanwhile, banks have been dealing with the difficulties of devising KYC (Know Your Customer) programs and building new systems and educating customer care personnel on many scenarios that might arise throughout the KYC process (Bheemaiah, 2017). To make the point, it goes without saying that both banks and regulators have already discovered these deficiencies and are already working to enhance customer service. Many banks are worried about the burden imposed on their clients due to these restrictions and hence consider them. However, when deciding how to deal with clients, they are faced with a predicament. Should they allocate time and resources to build and manage a consumer-friendly KYC process considering the Coronavirus pandemic (Bheemaiah, 2017), or risk harming consumer satisfaction by implementing and managing a KYC procedure that takes little time to complete? Despite having received regulatory clearance, this does not provide a pleasant consumer experience. A significant concern for financial institutions is that they may fail a regulatory examination and lose their operating license. An operating license, or any constraints on doing business, may be fatal to a bank, devastating for their account holders, and ruin the enterprises of any client. A length of time is likely allowed for a bank to become compliant to prevent this scenario. For some clients, adjustments that are not effectively communicated have a negative effect. The most significant

issue for all banks is making their services less onerous and maintaining a good relationship with their consumers. Even though there are frequently severe "global standards" programs that are tough to build with challenging and complicated processes for internal staff and customers to follow, they err on the side of caution by applying them. Forgoing compliance with a sound KYC compliance program might end up resulting in further fines, as well as the chance of losing a banking operations license, which is a severe, unfathomable outcome (Zavoli & King, 2021). Many restrictions have not been applied to financial institutions because it is in no one's best interest to do so. Compliance programs that are similarly uniform but customized to individual sorts of customers are not feasible ways to solve the issue. An efficient, effective, and practicable approach to assess each account holder on a case-by-case basis, within a reasonable time frame, or with the available resources, does not exist when the bank has thousands or even hundreds of thousands of accounts that may be affected. An economic downturn is expected in Malaysia by 2020 due to the COVID-19 pandemic and subsequent containment steps (Ismael et al., 2021; Yee et al., 2021). The recession poses a significant risk to financial inclusion programs around the globe. Following stringent measures to contain the outbreak, banks were closed, and mobile money agents halted. With the promotion of cashless and contactless payment methods, policymakers and health professionals have created fresh possibilities for Digital Financial Services to be adopted (DFS) (Cooke, 2021). Financial infrastructure advancements including mobile money services, internet banking, and other low-intent projects. Recent research shows that digital financial Inclusion may help spur economic development, alleviate poverty. Know Your Customer (KYC) data will help banks mitigate risk by identifying customers who are likely to default on a loan (Bheemaiah, 2017). To combat financial crime and money laundering, several banks around the world have introduced account management systems.

## Perceived Ease of Use

At first, Rogers and Cartano (1962) confirmed perceived ease of use is the degree to which innovation is perceived as not challenging to comprehend, practice or function (Maddux & Rogers, 1983). Venkatesh and Davis (2000) Find that perceived ease of use is not a good indicator of perceived usefulness to the user's attitude to technology adoption. However, the perceived ease of use became more critical as the length of use increased (Venkatesh & Davis, 2000). According to Davis et al., ease of use is the "degree to which the user expects an effortless target system" (Davis, 1989).

**H1:** Perceived ease of use positively impacts users' attitudes towards e-kyc onboarding as a new customer.

## Perceived Usefulness

According to the TAM, perceived usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance. Pikkarainen et al. (2004) applied TAM in Finland, they found perceived usefulness as a determinant of actual behavior, which encouraged twenty-first-century banking to use more innovative and user-friendly self-service technologies that give them greater autonomy in performing banking transactions. Then, obtain information on financial advice and purchase other financial (Pikkarainen et al., 2004). Numerous empirical research on IT adoption over the past decade has shown that perceived usefulness can positively impact user intentions (Hong & Zhu, 2006; Ng & Kwok, 2017). In this study, perceived usefulness refers to users choosing to adopt the service if they think the Banks eKYC onboarding system can positively impact.

**H2:** Perceived usefulness positively impacts users' attitude towards eKYC onboarding as a new customer.

## Perceived Risk

Perceived risk is a form of lack of trust, and most scholars believe that perceived risk is the main factor affecting technology adoption (Kesharwani & Singh Bisht, 2012; Sikdar & Makkad, 2015). According to Khedmatgozar and Shahnazi (2018) risk perception is the most critical factor

affecting e-services adoption (Khedmatgozar & Shahnazi, 2018).

**H3:** Perceived COVID-19 risk positively impacts users' attitude towards eKYC onboarding as a new customer.

### Perceived Cost

Banks are also automating the lengthy and onerous process of manually verifying each customer's paperwork for KYC purposes (Martin, Szekely, & Allemang, 2021). This not only decreases the chance of mistakes - which raises consumer irritation and abandonment rates - but also enables banks to decrease their expenses considerably. Banks may reallocate cash to other revenue-generating operations by automating the verification process, allowing them to pursue new growth prospects.

**H4:** Perceived cost positively impacts users' attitude towards eKYC onboarding as a new customer.

## Privacy and security

Cazier, Jensen, and Dave (2008) find that consumers' perceptions of privacy risk likelihood and privacy risk harm negatively impact their intentions to use this technology. Casaló, Flavián, and Guinalíu (2007) find that the data showed that website security and privacy, usability, and reputation have a direct and significant effect on consumer trust in a financial services website (Casaló et al., 2007). The findings show that security is the main factor influencing customers' decision to adopt online banking services (Tarhini et al., 2015). The security and quality of internet connection was the least important factor that motivated consumer adoption of online banking (Zahid, Mujtaba, & Riaz, 2010). Results indicate that all ten identified factors are significant concerning the users' adoption of e-banking services. Privacy and security are the significant sources of dissatisfaction, which have ominously impacted users' satisfaction (Poon, 2008).

**H5:** Privacy and security positively impact users' attitudes towards e-KYC onboarding as a new customer.

### Attitudes

In TAM's study, a positive attitude towards new technology is the basis of intentions to adopt this technology (Gupta & Arora, 2017; Ng & Kwok, 2017). The standard TAM claims a significantly positive correlation between users ' attitudes towards a particular technology and their adoption intentions, which are generally established in the banking industry.

**H6:** Users' Attitude has a positive impact on adopting eKYC onboarding as a new customer.

Because of a lack of study on this area, the present study contributes to the literature by examining the attitude of potential customers toward eKYC at Malaysian Banks during the Coronavirus pandemic. The attitude of potential customers for eKYC will make compliance affordable for adoption with new technologies currently accessible by Malaysian banks. But the proposed solutions have immense implications that are taken into consideration.

### Theoretical Framework and Hypothesis Development

TAM initially intended to make up for the defects of the theory of reasoned action (TRA) in 1986. This research took the TAM model as the fundamental paradigm of social psychology theory and introduced variables of perceived influence and subjective norms. The TAM model identifies several elements determining behavioral attitudes and splits them into perceived usefulness and perceived ease of use, which has a significant influence on the adoption of new technologies (Venkatesh & Bala, 2008). TAM does an excellent job explaining the difference in customer willingness to adopt IT and can be strengthened and defined according to the analysis problem, becoming one of the most widely used models in IT adoption research (Zhang, Lu, & Kizildag, 2018).

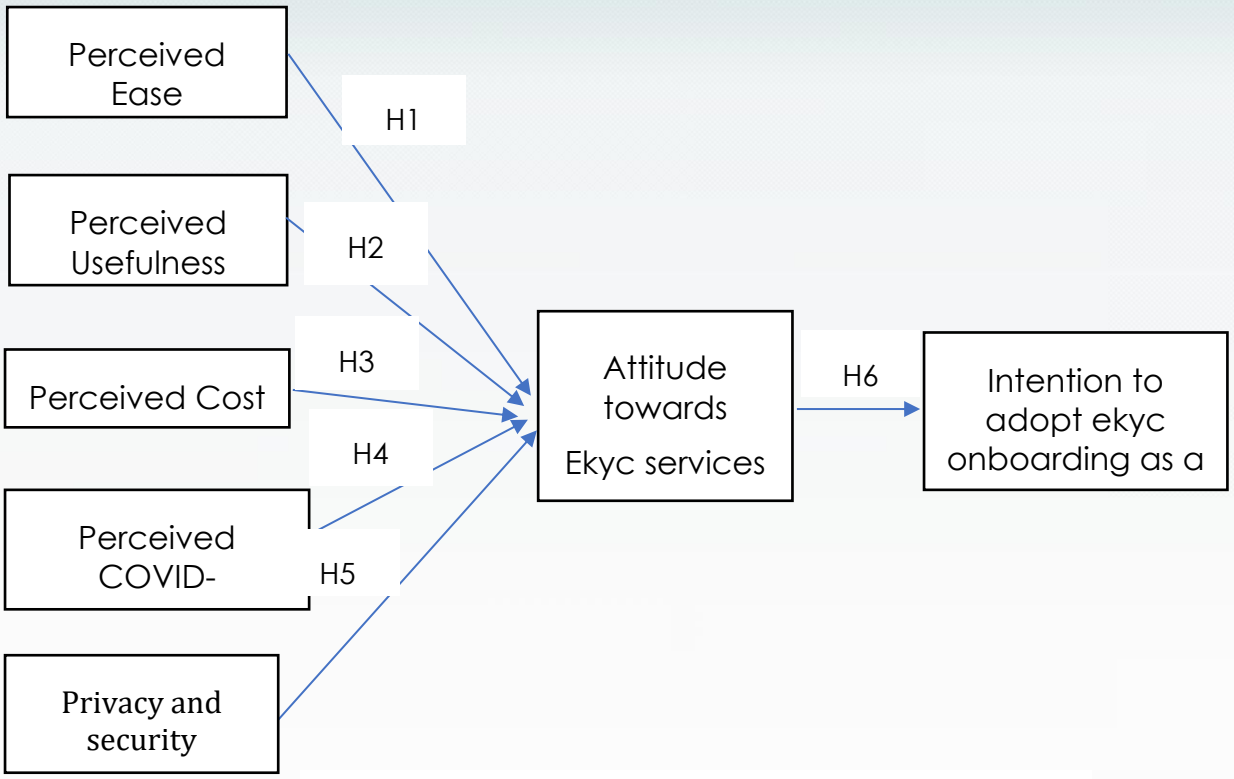


**Fig. 2.** Conceptual model and hypotheses of the

## Methodology

This study focuses on quantitative research, as the objective of this study is to identify factors that have a significant impact on the intention to adopt eKYC on board as a new bank customer. Primary data was collected through an online survey system to people living in MALAYSIA concerning their attitudes and opinions towards eKYC services. The survey questions were developed according to the operationalization of the research variables. A 5-point Likert scale will measure the items from strongly disagreed, disagreed, neutral, agreed, or strongly agreed. The data collected in this study will be analyzed using AMOS software and Statistical Package for Social Sciences (SPSS): the statistical techniques for this study will include the analysis of reliability and the regression analysis of validity. The research model will be conducted through SEM to validate the constructs and their convergence in the Measurement model and to test the hypotheses and validate the model.

## Data analysis and results

A total of 261 respondents' data was successfully collected between November and December 2020. Analyzing the profile, most of the respondents were male, that is, 73,90 percent and the rest of 22,10 percent were female. As per the data, most of the respondent's age (45,60%) were between 26 and 35 years, followed by 18–25 (21,2%), 36–45 (19,9%), 45–55 (11,5%) and 46 and above (1,1%). Meanwhile, most of the respondents were International (60,9%), Malaysia (31.1%). With regards to occupation, 36,8% of the respondents were student, 19,2% were self-employed, followed by Teacher (14,9%), Engineer (9,6%), Executive (6,5%), Housewife (5,7%), Manager (4,2%) and Doctor (3,1%). In terms of the financial service frequency, most respondents 63,6 indicated that they used banks and e-wallet, and (30,3%) used banks only. As per the data, most of the respondents used Touch and Go eWallet (37,9%) followed by GrabPay (33,7 %) and Boost (28,4%).

**Table 1:**
Demographics of participants

| Demographic | Characteristics of Sample | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 193 | 73,90 |
| | Female | 68 | 26,10 |
| Age | 18-25 | 57 | 21,80 |
| | 26-35 | 119 | 45,60 |
| | 36-45 | 52 | 19,90 |
| | 46-55 | 30 | 11,50 |
| | 56 years and above | 3 | 1,1 |
| Occupation | Doctor Engineer | 8 | 3,10 |
| | Executive Housewife | 25 | 9,60 |
| | Manager Self-Employed | 17 | 6,50 |
| | Student Teacher | 15 | 5,70 |
| | | 11 | 4,20 |
| | | 50 | 19,20 |
| | | 96 | 36,80 |
| | | 39 | 14,90 |
| Country of residence | Malaysia | 102 | 31,10 |
| | International | 159 | 60,90 |
| Frequency of financial service | Banks | 79 | 30,30 |
| | Banks; E-wallet | 166 | 63,60 |
| | E-wallet | 16 | 6,10 |
| Frequency of E-wallet | Boost | 74 | 28,40 |
| | Grab Pay | 88 | 33,7 |
| | Touch and Go e-Wallet | 99 | 37,90 |

No. Of participants**= 251**

# Results of data analysis

## Reliability of the measurement items

Cronbach is the measure of the reliability of the instrument. Its values range between 0-1. The higher the alpha the higher the reliability. Table 2 produced the alpha values for different scales. All the values are above 0.7 which means the instruments used were reliable. They measured the underlying constructs consistently.

**Table 2**:
Reliability of the measurement items

| Dimension | Items | Cronbach's Alpha |
|---|---|---|
| PC | 3 | 0,873 |
| PR | 4 | 0,858 |
| PEU | 4 | 0,860 |
| PU | 4 | 0,812 |
| PS | 4 | 0,849 |
| ATT | 3 | 0,856 |
| INT | 3 | 0,849 |
| Combined scale | 25 | 0,851 |

**Source:** Primary data

**PEU**: Perceived Ease of Use, **PC**: Perceived Cost, **PR**: Perceived COVID-19 Risk, **PU**: Perceived Usefulness, **PS**: Privacy and security, **ATT**: Attitude towards using EKYC, INT: Intention

## Kaiser–Meyer–Olkin and Bartlett's Tests of Sampling Adequacy

In Table 3, to verify if the data set was appropriate for analysis, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy value must be equal to or greater than 0.5 (Leech, Barrett, & Morgan, 2014).

**Table 3**:
Kaiser–Meyer–Olkin and Bartlett's Tests of Sampling Adequacy

| **KMO and Bartlett's Test** | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,841 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1988,732 |
| | df | 300 |
| | Sig. | ,000 |

**Source:** Primary data

## Discriminant validity (intercorrelations) of variable constructs Fornell-Larcker criterion

Fornell-Larcker criterion develops the discriminants validity of the instruments. Since the values in Table 4 produced are higher than the value of 0.7, it proves that the FornellLarcker criterion is met, and the discriminant validity is established. It again reiterates that the instruments used in the study were suitable.

**Table 4:**
Discriminant validity (intercorrelations) of variable constructs Fornell-Larcker criterion

| | **PEU** | **PC** | **PR** | **PU** | **PS** | **ATT** | **INT** |
|---|---|---|---|---|---|---|---|
| PEU | 0,777 | | | | | | |
| PC | -0,321 | 0,776 | | | | | |
| PR | 0,715 | -0,308 | 0,854 | | | | |
| PU | 0,544 | -0,506 | 0,661 | 0,789 | | | |
| PS | 0,431 | -0,280 | 0,271 | 0,249 | 0,760 | | |
| ATT | 0,555 | -0,169 | 0,613 | 0,643 | 0,392 | 0,869 | |
| INT | 0,657 | -0,308 | 0,569 | 0,574 | 0,292 | 0,756 | 0,875 |

**PEU**: Perceived Ease of Use, **PC**: Perceived Cost, **PR**: Perceived COVID-19 Risk, **PU**: Perceived Usefulness, **PS**: Privacy and security, **ATT**: Attitude towards using EKYC, **INT**: Intention.

## The measurement models

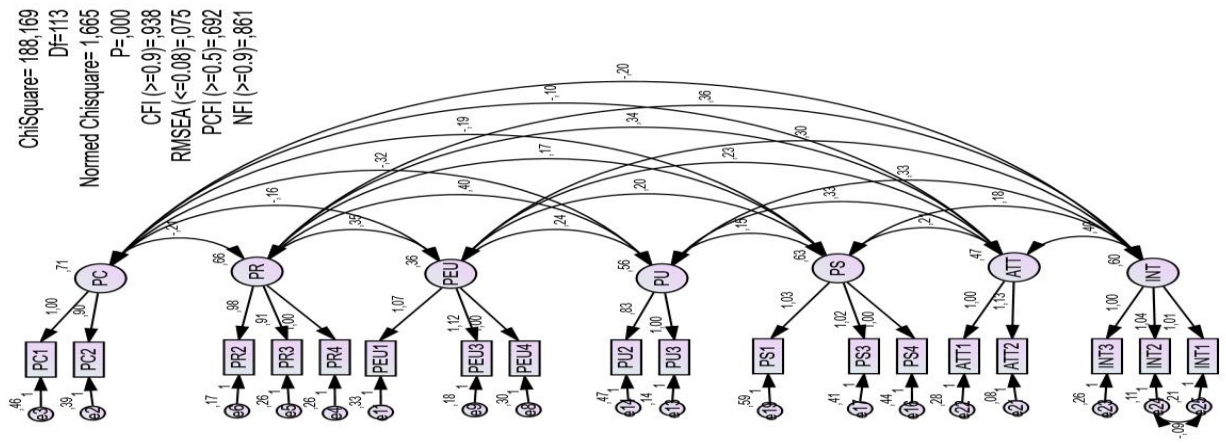


**Figure3:** The measurement model
According to the modification indices provided by AMOS, some indicators (PC3, PR1, PEU2, PU1,

PU4, PS2, and ATT3) were dropped from the initial measurement model because these items had very low squared multiple correlations. Then the overall fit model for the final measurement model was estimated to ensure a good data fit with the model. A variety of fit indices were assessed to identify model goodness-of-fit (Marsh, Hau, & Wen, 2004).

**Table 4:**
Model Fit Analysis of ekyc

| Fit index | Recommended value | Model (after modification) | Judgment of Model Fit |
|---|---|---|---|
| χ2 Chi-square Value | The smaller the better | 188,69 | Good |
| Degrees of freedom (df) | n/a | 113 | Good |
| Comparative fit index CFI | >0.90 | 0,938 | Good |
| Root mean square error of approximation (RMSEA) | <0.08 | 0,075 | Good |
| PCFI | >0.50 | 0,692 | Good |
| Normed fit index (NFI) | > 0.80 | 0,861 | Good |

The indices of model fit from three constructs were measured (Anderson & Gerbing, 1988). The outputs of the indices of model fit were acceptable (Table 4).

## The structural model

The SEM was performed to test the relationship among constructs. The model fit indicators of the structural regression model are acceptable ((Chi-square/df<5, CFI> 0.9, RMSEA<0.08) The structural model is constructed as in Figure4.

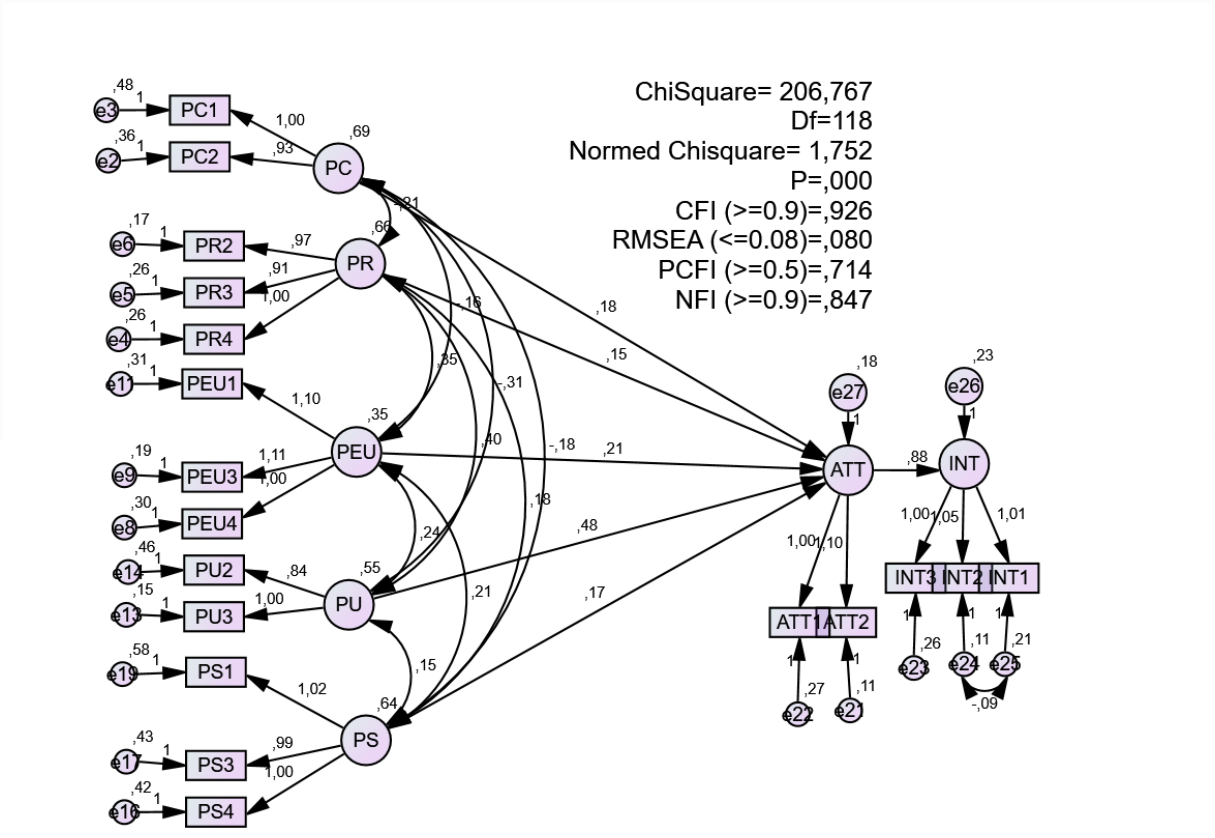


**Figure4:** The structural model

**Table 5.**
Summary of Hypothesis Results

| | Estimate | S.E. | C.R. | P | Results |
|---|---|---|---|---|---|
| H4: Perceived cost positively impacts users' attitude towards e-kyc onboarding as a new customer. | ,179 | ,094 | 1,900 | ,057 | Not supported |
| H3: Perceived COVID-19 risk has a positive impact on users' attitude towards e-kyc onboarding as a new customer. | ,154 | ,129 | 1,194 | ,233 | Not supported |
| H1: Perceived ease of use positively impacts users' attitudes towards e-kyc onboarding as a new customer. | ,213 | ,165 | 1,293 | ,196 | Not supported |
| H2: Perceived usefulness positively impacts users' attitude towards e-kyc onboarding as a new customer. | ,477 | ,156 | 3,052 | ,002 | Supported |
| H5: Privacy and security positively impact users' attitude towards e-KYC onboarding as a new customer. | ,171 | ,083 | 2,054 | ,040 | Not supported |
| H6: Users' Attitude has a positive impact on adopting e-kyc onboarding as a new customer | ,879 | ,120 | 7,314 | *** | Supported |

**Table 5** presents the statistics of a structural regression model. Hypotheses testing is examined using the critical ratio (CR) statistic whereby if CR>±1.96, the hypothesis is not rejected (Byrne, 2013). S.E. is an estimate of the standard error of the covariance. **C.R.** is the critical ratio obtained by dividing the covariance estimate by its standard error. The results of the structural model in Table 5 described that not all hypotheses are supported. There is a significant impact (β = 0.477, CR>±1.96, P < 0.05) of Usefulness on attitude towards using e-KYC onboarding as a new customer, indicating usefulness is a significant predictor. Besides that, there is a significant impact (β = 0.879, CR>±1.96, P < 0.05) of attitude towards using EKYC on intention to adopt e-kyc onboarding as a new customer indicating attitude towards adopting e-kyc onboarding as a new customer is a significant predictor. Moreover, H4 which states the effect of Perceived cost positively impacts users' attitude towards e-kyc onboarding as a new customer is not supported (β = 0.179, CR< ±1.96, P >0.05). Yet, H3 Perceived COVID-19 risk has a positive impact on users' attitude towards e-kyc onboarding as a new customer is not supported (β = 0.154, CR< ±1.96, P >0.05). Therefore, H1: Perceived ease of use positively impacts users' attitudes towards e-kyc onboarding as a new customer. Is not supported (β = 0.213, CR< ±1.96, P >0.05) Intriguingly, H5: Privacy and security positively impact users' attitude towards e-KYC onboarding as a new customer.is not supported (β = 0.171, CR< ±1.96, P >0.05)

## Discussion

This study has given an account of predicting citizens' adoption of eKYC. The results have strengthened our confidence in the hypothesis that Perceived usefulness, and Attitude is the significant positive predictors of BI to use of banks' ekyc solution. Banks asked about the information their customers felt was lacking, their profitability, and KYC requirements. They replied that there was a lack of information, low profitability, and customer KYC worries (Gill & Taylor, 2004). The digital transformation process has accomplished an array of notable breakthroughs in all these areas. Regtech solutions focus on automating KYC reporting and providing new information from which firms may value. At the same time, fintech businesses utilize this information to get a better valuation, and digitalization projects are interested in decreasing financing costs, and the same conclusion was reached by (Othman, 2021). It may argue that digitization has aimed to alleviate some of the causes of the issue but has, in turn, aggravated the situation in other ways. While digital platforms have recently deployed, this is the first time that these platforms have not interacted with one other. As a result of the Corona epidemic, would restrictions on financial services rise or reduce (or keep the same)? Some expect deregulation would ease the burden on the sector, but this is not always the case. Nonetheless, 'deregulation can be

considered deceptive, since eliminating restrictions sometimes necessitates introducing laws that can regard as granting further latitude in the face of the Coronavirus (but for some actors less). Because of this uncertainty, banks may have difficulties projecting the shift, which will hinder their ability to think about new measures in light of the epidemic (Barnett, Buchak, & Yannelis, 2020). Regulation is particularly crucial since rules evolve, from a concentration on internal enforcement difficulties to a complicated problem with the dynamics of the banking business (Ehlers, Kong, & Zhu, 2018). Since it is relevant to this current topic, the previous framework's periods of organizational development will show how the following framework relates to the current one. Comprehensive skills for regulatory administration are established based on this historical image. Currently, KYC costs banks and their customers a large amount of money. It was investigated in the European Banking Association (EBA) Crypto technologies Working Group's March 2017 document published in April 2017 (Hofmann, Strewe, & Bosia, 2017). However, cash transfers simplify internal settings and customer identifying data for banks. The opening of access to identify information provides further benefits. To eliminate delays due to fragmented information, a single in-house source of truth about a customer's identity is possible. Customers who want to get into new relationships with banks should adequately screen for AML and due diligence. This use case concerns this occurrence. KYC information exchange within the financial industry or between banks and their subsidiaries is facilitated by supporting secure data access. It helps banks and affiliates provide customized products without excessive duplication. Most clients have something terrible to say about the KYC process. While consumers and bank workers feel frustrated, the levels of irritation are high. Banks fail to alter, but they attempt. For compliance purposes, clients are not reliable. However, they embrace this as business planning. The current position satisfies neither party. Customers should lawfully use their accounts without being subjected to excessive scrutiny while addressing difficulties identified during the KYC process (Hofmann et al., 2017). Most times, the most straightforward answer to KYC simplification is advanced technology. The is a correct statement, but it fails to consider other important points. It will be an essential component in solving the problem. However, the difficulty is that there are no universal data standards and protocols, which is a significant obstacle for banks and regulators alike. Remember, for example, the difficulty that banks have in accepting identification papers. The identification document's function is to validate the name, nationality, and date of birth of the account holder. Mostly, the identifying information banks throughout the globe gather under the "Know Your Customer" program is the same. For the consumer, this information is static, and as such, it is only verified once, which is sufficient anytime any bank in the globe wants it single-time identity verification is completed with a responsible third party (which could be a bank or an independent company); after that, the confirmed information is signed by the third party and then connected to the encrypted personal data file. The clients permit the bank to access the encrypted file if the key exchange verifies their authority. Only the relevant personal identifying information is sent from the data file to the bank, which subsequently transfers them into the KYC system in the back office. This model has been known by numerous names, including "eKYC", see (Gupta & Tham, 2018; Rabbi, 2020; Rankhambe & Khanuja, 2021). Once completed, clients maintain control and ownership of their data. It decreases the likelihood of mistakes, as well as cutting expenses and resources. The procedure may complete in seconds rather than days or weeks. It is presently in use and readily accessible. The issue is trying to decide on a universal data format and who will be trusted to verify and validate identification facts. Banks must confirm that the format of the data and the regulators' acceptance of the third-party certification organization are consistent before they will accept the eKYC form.

## Conclusion

It was cost-prohibitive for banks to satisfy KYC regulations since the necessary technology was lacking, and bank employees had to follow a paper-based method to do the task. On the other hand, clients must bear the brunt of the cost, but it is mainly measured in lost chances and irritation. It should come as no surprise to anybody that these difficulties exist at this time of transformation for the banking sector. The critical aspect is that all parties are actively collaborating to adapt and conform to local rules and regulations and foreign laws and regulations, particularly considering clients' demands as part of the Corona epidemic. KYC protocols are in place to safeguard those involved and prevent financial instability, see result finding by Rabbi. The frustrating thing was that KYC tools were only adopted at a sluggish rate given the severity of the Coronavirus outbreak. Regtech, as it began called, is still in its early stages, as start-up firms of all

sizes strive to provide new technological tools with proven commercial success, but without clearly worldwide solutions in place (yet). Although banks desire these technologies to be more widely adopted, they are prevented from doing so because of a lack of worldwide standards. Regtech solutions and banks will apply these better if the intergovernmental organizations and regulators approve of the eKYC standards and if a more uniform approach is developed on how electronic IDs are provided, those suggested by Gurung and Perlman (2018). Meanwhile, banks find themselves amid incomplete regulations across nations and within each country's legal system. The marriage of eKYC with the national identification card system is seen conceptually as a marriage between blockchain technology and the existing national identification card system. The level of agreement on whether the government or a responsible third party holds the key to privacy varies. Until a standards agreement is reached, banks must delay any complete commitment to eKYC until the problem is addressed. Efforts in establishing accepted standards would expedite the introduction of eKYC support solutions to the market. To be successful and used by customers, these tools must conform to financial services and privacy rules. It is possible to create these tools with existing technology, and some nations throughout the world have begun to use them for their people. It will make KYC a lot easier if we can overcome the standards obstacle. As a result, banks are no longer interested in defending consumers' interests; instead, their primary goal is to improve the relationship between consumers and the business.

## Limitations and future research

Incorporating the TAM into this study enabled us to gain a better understanding of the adoption of eKYC (electronic Know Your Customer) system. However, this study is challenged by some limitations. To begin with, there are still more other elements that influence COVID-19 pandemic ekyc intentions and that require further investigation. Moreover, the scope of this study is confined to app users in underdeveloped countries such as Malaysia. While some other countries with varying levels of technology readiness may encounter different outcomes. The context of one country can be extended to other countries to compare the readiness of technology as a tool in the adoption of banks' electronic Know Your Customer system. Also, such a specific context can be extended to other countries to compare the readiness of technology as a tool in the adoption of banks' electronic Know Your Customer system.

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### Conflict Of Interest

They have no conflict of interest.

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