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# Why People Adopt Mobile Passport? An Extension of Technology Acceptance Model

Yoserizal Yoserizal[1], Krismena Tovalini[2], Yulia Hanoselina[3]

[1]Department of Public Administration, Universitas Andalas
[2]Department of Public Administration, STIA Adabiah Padang
[3]Department of Public Administration, Universitas Negeri Padang

Corespodence: yoserizal.fisip.unand@gmail.com[1]

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ABSTRACT

The increasing demand for efficient public services in the immigration sector has driven the Directorate General of Immigration of Indonesia to innovate through the Mobile Passport (M-Passport) application. This digital platform enables the public to apply for new passports and renew expired ones online, aligning with national e-government policies to enhance service quality and operational efficiency. This study aims to examine factors influencing the adoption of M-Passport using an extended Technology Acceptance Model (TAM) by incorporating the variable of individual attractiveness. Specifically, it investigates the effects of individual attractiveness, perceived usefulness, and perceived ease of use on attitude, as well as their indirect influence on behavioral intention. A quantitative approach was applied, utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) on data from 400 respondents who accessed M-Passport services at the Class I TPI Immigration Office in Padang. Non-probability convenience sampling was employed, and data were analyzed for validity, reliability, and hypothesis testing. Results reveal that three of six hypotheses were supported: individual attractiveness positively and significantly affects perceived usefulness; perceived ease of use positively and significantly affects perceived usefulness; and attitude positively and significantly affects behavioral intention. Conversely, individual attractiveness, perceived usefulness, and perceived ease of use showed no significant direct effects on attitude. The findings underscore the importance of enhancing the application's visual appeal and ease of use to improve perceived usefulness and ultimately drive adoption. This research contributes both theoretically, by extending TAM in the context of public service innovation, and practically, by offering recommendations to immigration authorities for improving M-Passport uptake.

Keyword: Adoption, Technology Acceptance Model, PLS-SEM, M-Passport

## INTRODUCTION

The increasing public demand for public services in the field of immigration requires the Directorate General of Immigration as a service provider to develop innovations in the form of the Mobile Passport (M-Passport) application. M-Passport is an immigration service application that can be used by the public to submit applications and replace expired passports

online. M-Passport innovation comes as an effort to support electronic-based government performance in providing optimal services to community.

Presidential Instruction Number 3 of 2003 concerning National Policy and Strategy for the Development of e-government and Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems (SPBE) explains that to improve the quality of public services and realize effective and efficient government performance, the central government, ministries, institutions, and local governments must run a government system by utilizing information communication technology (ICT) as a whole, including immigration services carried out by the Directorate General of Immigration.

Based on the Director of Immigration Traffic Letter Number IMI.2.UM.01.01-4.0331 concerning the Implementation of M-Passport, the M-Passport innovation officially began to be used at all Immigration Offices in Indonesia since January 26, 2022, including at the Immigration Office Class I Immigration Checkpoint (TPI) Padang. Immigration Office Class I TPI Padang is a Technical Implementation Unit (UPT) within the Regional Office of the Ministry of Law and Human Rights of Riau Islands which is tasked with carrying out the Tri Functions of immigration (law enforcement function, community service function, and security function) in the Padang City area.

One important element in the implementation of a digital technology-based public service innovation is the acceptance of the technology. The successful implementation of digital technology-based public service innovations is not only determined by how the system is able to process input and produce outputs properly, but also determined by how willing users (the public) are to accept and use the system, so that the objectives of innovation development can be achieved. Therefore, community acceptance and adoption of a public service innovation system is very important to note. Given that success of implementing innovation is highly dependent on the desire of the community to adopt these innovations (Ali et al., 2019; Obaid et al., 2022).

The adoption of the M-Passport innovation reflects the intention of the community to access passport services through an electronic platform in the form of the M-Passport application. Public adoption of M-Passport innovation in this study was studied through the technology acceptance model (TAM) approach proposed by Davis (1989). When individuals are offered to use a new information technology system, there are a number of factors that influence their decision to use the system. According to the TAM approach, user acceptance of new information technology systems is influenced by three main variables or constructs, namely perceived usefulness, and perceived ease of use, and attitude (Davis, 1989, 1993).

Following Garcia II et al. (2023), this study extend TAM by adding individual attractiveness variables. Furthermore, this study introduces individual attractiveness in the model and examines its effect on perceived ease of use and individual attractiveness on perceived usefulness. This research also analyzes the influence of individual attractiveness, perceived usefulness, and perceived ease of use on attitude in the context of M-Passport users in Padang City. From the explanation above, the questions in this study can be formulated as follows:

a. How do individual attractiveness, perceived usefulness, and perceived ease of use affect attitude?
b. How do individual attractiveness and perceived ease of use affect perceived usefulness?
c. How does attitude influence the adoption of M-Passport?

This research has theoretical and practical contributions. Theoretically, the study of M-Passport has not been widely conducted by previous studies. Based on a literature search, it was noted that Bissessar et al. (2016) have studied biometric systems in biometric-based M-Passports. This study is based on information systems science that studies the core systems in M-Passports. Meanwhile, this study investigates a person's interest in using an M-Passport. Therefore, this research can expand the study of Bissessar et al. (2016) by looking at the individual behavior of M-Passport users.CPractically, this research is important to conduct

because failure in the implementation of digital technology-based public service innovations is not only caused by technological factors alone, but also by user factors. Therefore, the findings of this research will contribute to the Immigration Office Class I TPI Padang in increasing the adoption and use of M-Passport innovations in the community.

## RESEARCH METHODS

This study uses a positivistic paradigm. While the approach used is a quantitative approach with the partial least square structural equation modeling (PLS-SEM) method. The population of this study were all those who took care of M-Passport services at the Class I TPI Immigration Office in Padang. This study uses non-probability sampling techniques with a convinience sampling approach given that the population is difficult to identify the exact number and the limitations of researchers in obtaining samples if selected randomly (random sampling). The sample size is taken using a formula, where the number of samples is determined based on the formula: number of items x 20. Because the number of items in this study was 18, the number of samples in this study was set at 400 people (20 x 20).

Data analysis was carried out using structural equation modeling (SEM) with the help of SmartPLS software. Before conducting validity and reliability tests, we tested ZScore outlier screening at a distance of up to -3 to 3 scores (Hair, 2009). Hypotheses were tested in three stages, namely simple linear regression and multiple linear regression. Simple linear regression was used to measure the effect of independent variables on the dependent variable. Multiple linear regression was conducted to test the direct effect of independent variables on the dependent variable. Bootstrapping test with 5,000 resample is used to test the effect of independent variables on the dependent variable (Hair, 2017).

After the stages of testing the suitability of the model and data normality are carried out, the next step is testing the proposed research hypothesis. This hypothesis testing is based on research data processing using SEM analysis, by analyzing the regression values displayed in the SEM analysis table (regression weights). This hypothesis testing is by using the Probability value (p-value) of the data processing results, compared to the statistical limitations that are implied, which is below 0.05 for the p value. To test the hypothesis of causality developed in this research model, it is necessary to test the null hypothesis stating that the regression coefficient between relationships is equal to zero through the t-test commonly used in regression models. In the output of SEM, this causality test is carried out by reading the CR (critical ratio) value which is identical to the t-test. While the value listed in the significance column shows the level of significance between variables in the model. The relationship between variables with a significance level below 0.05 indicates that the relationship is a significant relationship.

## RESULTS

1. Characteristics of Respondents

Respondents in this study consisted of 128 men (51.18%) and 122 women (48.82%). Based on age distribution, the majority of respondents were aged 21-30 years (34.02%), followed by those aged under 20 years (26.18%), 31-40 years (18.04%), 41-50 years (13.88%), and above 50 years (7.88%). In terms of education, most respondents were high school graduates (42.95%), followed by undergraduate graduates (28.73%), diploma graduates (20.42%), junior high school graduates (4.23%), postgraduate graduates (2.47%), and elementary school graduates (1.20%). Based on occupation, the largest group consists of students (38.31%), followed by private employees (24.89%), civil servants, PPPK, or contract employees (14.50%), self-employed (12.41%), unemployed (5.43%), and housewives (4.46%). These diverse demographics show a balanced representation in terms of gender, age, education, and occupation. The distribution of respondents in this study is summarized in Table 1.

Table 1. Research Respondents

| Characteristics | Item | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 128 | 51,18 |
| | Female | 122 | 48,82 |
| Age (Year) | < 20 | 65 | 26,18 |
| | 21-30 | 85 | 34,02 |
| | 31-40 | 45 | 18,04 |
| | 41-50 | 35 | 13,88 |
| | >50 | 20 | 7,88 |
| Education | Post-graduate | 6 | 2,47 |
| | Bachelor | 72 | 28,73 |
| | Diploma | 51 | 20,42 |
| | High School | 107 | 42,95 |
| | Junior High School | 11 | 4,23 |
| | Elementary | 3 | 1,20 |
| Occupation | Public employees | 36 | 14,50 |
| | Private employees | 62 | 24,89 |
| | Self-employed | 31 | 12,41 |
| | Housewife | 11 | 4,46 |
| | Student | 96 | 38,31 |
| | Not Employed | 14 | 5,43 |

Source: Author, 2025

2. Descriptive Statistics

Analysis of research variables is used to be able to determine the tendency of answers on the questionnaire or the extent to which respondents' answers are in accordance with the category of answer choices using an ordinal scale from a scale of 1 (strongly disagree) to 5 (strongly agree) to questions related to each variable. The mean, standard deviation, maximum, and minimum values are used in descriptive statistics to provide an overview or description of the data. Furthermore, the data collected was tabulated to determine the respondents' answers to each research variable. The table of variable descriptive statistical test results can be seen in Table 2 below.

Table 2. Descriptive Variable Statistical Test Results

| Variable | Item Code | Min | Max | Mean | Standard Deviation |
|---|---|---|---|---|---|
| Individual Attractiveness | PA 1 | 2.000 | 5.000 | 3.381 | 0.501 |
| | PA 2 | 2.000 | 5.000 | 3.310 | 0.490 |
| | PA 3 | 2.000 | 5.000 | 3.405 | 0.480 |
| Perceived Usefulness | PU 1 | 2.000 | 5.000 | 3.405 | 0.456 |
| | PU 2 | 2.000 | 5.000 | 3.333 | 0.470 |
| | PU 3 | 2.000 | 5.000 | 3.452 | 0.570 |
| Perceived Ease of Use | PEU 1 | 2.000 | 5.000 | 3.452 | 0.529 |
| | PEU 2 | 1.000 | 5.000 | 3.405 | 0.526 |
| | PEU 3 | 2.000 | 5.000 | 3.452 | 0.459 |
| Attitude | AT 1 | 3.000 | 5.000 | 3.524 | 0.484 |
| | AT 2 | 2.000 | 5.000 | 3.429 | 0.505 |
| | AT 3 | 3.000 | 5.000 | 3.381 | 0.453 |
| | AT 4 | 2.000 | 5.000 | 3.310 | 0.414 |
| | BI 1 | 2.000 | 5.000 | 3.429 | 0.432 |

| Variable | Item Code | Min | Max | Mean | Standard Deviation |
|---|---|---|---|---|---|
| Behavioral Intention | BI 2 | 3.000 | 5.000 | 3.452 | 0.406 |
| | BI 3 | 3.000 | 5.000 | 3.405 | 0.402 |

Source: Data processed by the author

Based on the data in table 2, it can be seen that the individual attractiveness variable has a minimum value of 2000, a maximum of 5000, a mean of 3.365 and a standard deviation of 0.490. These results indicate that most respondents gave an agreeing response to questions about the individual attractiveness variable based on the perceptions of the respondents and followed by answers that were quite agreeable. Perceived usefulness has a minimum value of 2000, a maximum of 5000, a mean of 3,396 and a standard deviation of 0.498. These results indicate that most respondents gave an agreeing response to questions regarding the perceived usefulness variable based on the perceptions of the respondents and followed by answers that were quite agreeable.

Perceived ease of use has a minimum value of 2000, a maximum of 5000, a mean of 3,436 and a standard deviation of 0.504. These results indicate that most respondents gave an agreeing response to questions regarding the perceived ease of use based on the perceptions of the respondents and followed by answers that were quite agreeable. Attitude has a minimum value of 3000, a maximum of 5000, a mean of 3.411 and a standard deviation of 0.464. These results indicate that most respondents gave an agreeing response to questions about the attitude variable based on the perceptions of the respondents and were followed by answers that were quite agreeable. Behavioral intention has a minimum value of 2000, a maximum of 5000, a mean of 3,428 and a standard deviation of 0.413. From these results, it shows that most respondents gave an agreeing response to questions regarding the behavioral intention variable based on the perceptions of the respondents and followed by answers that were quite agreeable

3. Measurement Model

This study uses PLS-SEM analysis that is an alternative structural equation modeling (SEM) technique that can be used to solve problems. PLS is an SEM technique based on an interactive approach that maximizes the explained variance of endogenous constructs (Fornell & Larcker, 1981). Convergent validity test is one of the steps in conducting data analysis which is used to assess the extent to which the indicators used to measure a latent variable truly reflect the variability of the latent variable. This test is part of data analysis in the context of the Structural Equation Modeling (SEM) method, including the use of software such as SmartPLS-SEM. Convergent validity can be seen through the loading factor which can be seen usually above 0.7 and Average Variance Extracted (AVE) which is seen usually above 0.5, the following each of the convergent validity tests will be explained (Yoserizal et al., 2023; Yudiatmaja et al., 2024). An instrument can be said to fulfill the convergent validity test if it has a loading factor value> 0.7. The results of convergent validity testing with loading factors are presented in Table 3

Table 3. Convergent Validity Test with Loading Factor

| Variable | Item | Loading | AVE | CR | Cronbach Alpha |
|---|---|---|---|---|---|
| Individual Attractiveness | IA 1 | 0.950 | 0.907 | 0.959 | 0.936 |
| | IA 2 | 0.958 | | | |
| | IA 3 | 0.916 | | | |
| Perceived Usefulness | PU 1 | 0.905 | 0.920 | 0.964 | 0.944 |
| | PU 2 | 0.958 | | | |
| | PU 3 | 0.922 | | | |

| Variable | Item | Loading | AVE | CR | Cronbach Alpha |
|---|---|---|---|---|---|
| Perceived Ease of Use | PEU 1 | 0.893 | 0.863 | 0.951 | 0.898 |
| | PEU 2 | 0.925 | | | |
| | PEU 3 | 0.870 | | | |
| Attitude | AT 1 | 0.937 | 0.887 | 0.927 | 0.842 |
| | AT 2 | 0.905 | | | |
| | AT 3 | 0.903 | | | |
| | AT 4 | 0.808 | | | |
| Behavioral Intention | BI 1 | 0.911 | 0.900 | 0.958 | 0.913 |
| | BI 2 | 0.956 | | | |
| | BI 3 | 0.976 | | | |

Source: Data processed by the author

Based on the results of Table 3 above, it can be seen that all indicators can produce a loading factor value of > 0.07. Indicators with a high loading factor have a stronger contribution to explaining the latent construct. Conversely, if the indicator with a lower loading factor has a weak contribution to explaining the latent construct. In most references, a factor weight of 0.07 or more is considered to have strong validation to explain the latent construct Hair et al. (2010). That way it can be said that all indicators are able to measure variables, so the analysis can be continued. The loading factor value used in this study is > 0.7, so if there is a loading factor value of < 0.7 in the calculation of the measurement model (outer model), it will be removed from the model or removed. The results of the calculation or calculation of the measurement model with PLS-SEM version 3.2.9 which can then be seen the loading factor values on all indicators of each research variable that have met the value of >0.7.

Convergent validity tests can also be known through AVE. Another way to assess discriminant validity is achieved by comparing the square of the AVE of each construct with the correlation value between constructs in the model. The specified AVE value must be greater than 0.5.(Fornell & Larcker, 1981). The convergent validity of the AVE examination explains the amount of diversity of *manifest variables* that can be owned by latent constructs. The greater the diversity of *manifest variables* that can be contained by latent constructs, the greater the representation of *manifest variables* on latent constructs. The term *manifest variable* is often referred to as an indicator. The AVE value must be greater than 0.5. It can be seen that all variables produce an Average Variance Extracted (AVE) value with an amount greater than 0.5. this the indicator is declared valid for measuring dimensions or variables.

The discriminant validity test can also be done by looking at the AVE for each construct which must be greater than the correlation value with other constructs in the model so that it can be said to have a good discriminant validity value (Fornell & Larcker, 1981) which can be seen in Table 4 below

Table 4. Discriminant Validity Test (Fornell-Larcker Criterion)

| Componen | AT | BI | PA | PEU | PU |
|---|---|---|---|---|---|
| Attitude | 0.942 | | | | |
| Behavioral Intention | 0.698 | 0.948 | | | |
| Individual Attractiveness | 0.684 | 0.685 | 0.952 | | |
| Perceived Ease of Use | 0.668 | 0.662 | 0.731 | 0.929 | |
| Perceived Usefulness | 0.735 | 0.696 | 0.927 | 0.776 | 0.959 |

Source: Data processed by the author with SmartPLS version 3.2.9 (2024)

According to (Henseler et al., 2015) provides an opinion that there are new criteria for testing discriminant validity, namely by looking at the results of the Heterotrait-Monotrait Ratio

(HTMT) matrix in PLS. The recommended measurement value must be less than 0.85 and if there is a value greater than 0.85 up to a maximum limit of 0.90, it can be considered sufficient, the HTMT matrix can be seen in Table 5 below:

Table 5. Discriminant Validity Test (Heterotrait-Monotrait Ratio)

| Componen | AT | BI | PA | PEU | PU |
|---|---|---|---|---|---|
| Attitude | | | | | |
| Behavioral Intention | 0.784 | | | | |
| Individual Attractiveness | 0.838 | 0.752 | | | |
| Perceived Ease of Use | 0.812 | 0.731 | 0.807 | | |
| Perceived Usefulness | 0.876 | 0.726 | 0.896 | 0.876 | |

Source: Data processed by the author with SmartPLS version 3.2.9 (2024)

Based on the results in the table above with the final results, the number of respondents is 42 respondents and several indicators have been deleted which causes the data to be imperfect or valid because the results of the discriminant validity of HTMT the correlation value between PA and PU is above 0.9. So it shows that PA and PU have a high correlation. Another cause that makes the data imperfect is that the number of respondents is too small so that the results of HTMT discriminant validity are not perfect.

4. Structural Model Analysis

Testing the structural model by looking at the significance of the relationship between constructs or variables (Sarstedt et al., 2021). This can be seen from the path coefficient which describes the strength of the relationship between variable constructs. The sign or direction in the path coefficient must be in accordance with the hypothesized theory, the structural model test is carried out to assess the coefficient of determination ($R^2$), effect size ($f^2$), predictive relevance value ($Q^2$), t-statistic. As can be seen in Figure 1 below:

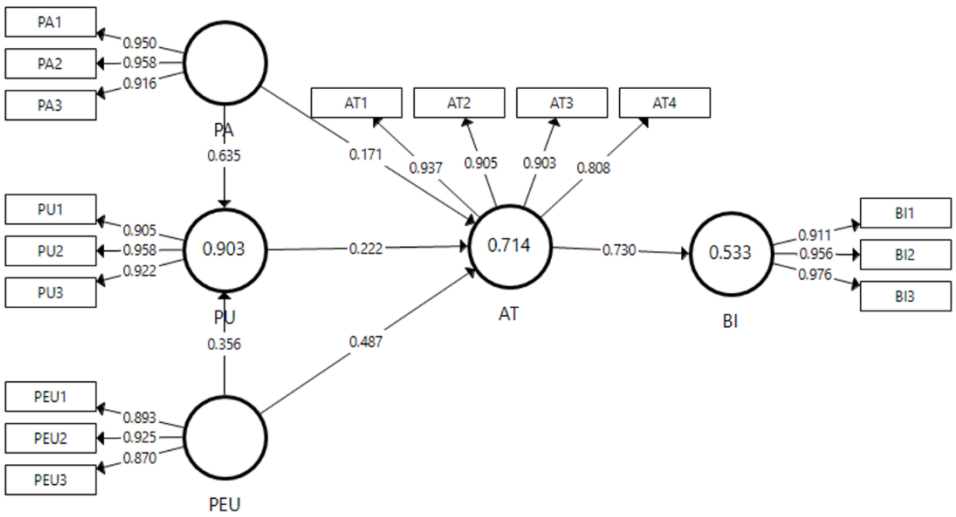


Figure 1. Structural Model Test Results (Inner Model)
Source: Data processed by the author with SmartPLS version 3.2.9 (2024)

Interpretation of the value of $R^2$ linear regression, namely the amount of variance in endogenous variables that can be explained by exogenous variables. According to Chin & Newsted (1999), the $R^2$ criteria consist of three classifications, namely $R^2$ values of 0.67, 0.33, and 0.19 as strong (substantial), moderate (moderate), weak (weak). Changes in $R^2$ can be used to see whether the effect of exogenous latent variables on endogenous latent variables has a substantial effect. The coefficient of determination ($R^2$) is used to determine the ability of endogenous variables to explain the diversity of exogenous variables. Or in other words, to

determine the magnitude of the contribution of exogenous variables to endogenous variables. The $R^2$ results can be seen in table 13 below: Based on Table, it can be seen that the R-Square value of attitude is 0.565 or 56.5%. With this value, it can show that the diversity of the attitude variable can be explained by the individual attractiveness, perceived usefulness, perceived ease of use variables by 56.5% or it can be said that the contribution of the attitude variable can be explained by the individual attractiveness, perceived usefulness, and perceived ease of use variables to attitude by 56.5%.

Furthermore, the R-Square value on behavioral intention is 0.487 or 48.7%. This shows that the diversity of the behavioral intention variable can be explained by the attitude variable by 48.7% or it can be said that the contribution of the behavioral intention variable can be explained by attitude by 48.7%. Furthermore, the R-Square value on perceived usefulness amounted to 0.880 or 88.0%. This shows that the diversity of perceived usefulness variables can be explained by the individual attractiveness, perceived ease of use variables by 88.0% or it can be said that the contribution of the perceived usefulness variable can be explained by individual attractiveness, perceived ease of use by 88.0%. Effect size ($f^2$) is used to determine the proportion of variance of exogenous variables to endogenous. The $f^2$ values of 0.02, 0.15 and 0.35 can be interpreted whether the latent variable predictors have a small, moderate, and large influence at the structural level according to (Cohen, 1992), while the $f^2$ results can be seen in Table 7 below:

Table 7. Effect Size Testing Results

| Componen | AT | BI | PA | PEU | PU |
|---|---|---|---|---|---|
| Attitude | | 0.950 | | | |
| Behavioral Intention | | | | | |
| Individual Attractiveness | 0.000 | | | | 2.301 |
| Perceived Ease of Use | 0.054 | | | | 0.175 |
| Perceived Usefulness | 0.083 | | | | |

Source: Data processed by the author with SmartPLS version 3.2.9 (2024)

The results of this study indicate that the attitude variable has an effect size value, where the value is 0.950, which means it shows that these values are in the large category. This means that the attitude variable has a fairly important role in the behavioral intention variable. Individual attractiveness has an effect size value, where the value is 0.000, 2.301 which means it shows that this value is in the small and moderate category. In other words, the Individual attractiveness variable has a fairly important role in the attitude and perceived usefulness variables.

Table 8. Hypothesis Testing

| Hypothesis | Original Sample (O) | Standard Deviation (STDEV) | t-Statistic (\|O/STDEV\|) | P-Values | Type |
|---|---|---|---|---|---|
| H1: Individual Attractiveness → Perceived Usefulness | 0.771 | 0.067 | 11.519 | 0.000 | Accepted |
| H2: Individual Attractiveness → Attitude | 0.013 | 0.315 | 0.010 | 0.992 | Rejected |
| H3: Perceived Usefulness → Attitude | 0.549 | 0.315 | 1.742 | 0.082 | Rejected |
| H4: Perceived Ease of Use → Attitude | 0.244 | 0.283 | 0.860 | 0.390 | Rejected |
| H5: Perceived Ease of Use → Perceived Usefulness | 0.213 | 0.078 | 2.738 | 0.006 | Accepted |

| Hypothesis | Original Sample (O) | Standard Deviation (STDEV) | t-Statistic (\|O/STDEV\|) | P-Values | Type |
|---|---|---|---|---|---|
| H6: Attitude → Behavioral Intention | 0.698 | 0.108 | 6.460 | 0.000 | Accepted |

Source: Data processed by the author with SmartPLS version 3.2.9 (2024)

Perceived ease of use has an effect size value, where the value is 0.054, 0.175 which means it shows that this value is in the small and moderate category. In other words, the perceived ease of use variable has a fairly important role in the attitude and perceived usefulness variables. Perceived usefulness has an effect size value, where the value is 0.083, which means it shows that this value is in the small and moderate category. In other words, the perceived usefulness variable has a fairly important role in the attitude variable Significant testing is used to test whether or not there is an influence of exogenous variables on endogenous variables. The test criteria state that if the t-statistic value ≥ t-table (1.96) or the p-value < significant alpha 5% or 0.05, it is stated that there is a significant effect of exogenous variables on endogenous variables. The results of significant and model testing can be seen from table 8

The research findings indicate that out of six tested hypotheses, three were supported while the other three were not. Attitude was found to have a positive and significant effect on behavioral intention ($H_1$ accepted). Individual attractiveness did not significantly affect attitude ($H_2$ rejected), but it had a positive and significant effect on perceived usefulness ($H_3$ accepted). Perceived ease of use did not significantly influence attitude ($H_4$ rejected), yet it positively and significantly affected perceived usefulness ($H_5$ accepted). Meanwhile, perceived usefulness showed a positive but insignificant effect on attitude ($H_6$ rejected). These results highlight the crucial role of attitude in influencing behavioral intention, as well as the importance of individual attractiveness and perceived ease of use in shaping perceptions of usefulness.

## DISCUSSION

Based on the results of the calculation, the t-statistic value is 6,460 which means > 1.96 and a sig value of 0.000 below 0.05, then $H_1$ is accepted, which means that attitude has a positive and significant effect on behavioral intention, meaning that changes in attitude value have a unidirectional effect on behavioral intention or in other words, if attitude increases, there will be an increase in the level of behavioral intention and statistically has a significant effect. Based on the results of data management with SmartPLS version 3.2, it is known that the path coefficient value of attitude on behavioral intention is 0.698, which means that attitude has a positive relationship with behavioral intention.

This finding confirms several previous studies which found that attitude has an influence on behavioral intention. First, research according to (Kanchanatanee et al., 2014) has a positive and significant influence with a large amount where according to the results of his research shows that for SME owners in the three southern border provinces of Thailand, attitudes towards using mobile passports are the most influential factor on the intention to use mobile passports.

Second, research according to (Shanmugam et al., 2014) has a positive and significant influence where in these findings it succeeds in presenting findings regarding the mediation effect: first, attitudes partially mediate the relationship between perceived benefits and behavioral intention to use mobile banking, second, attitudes partially mediate the relationship between perceived ease of use and intention to use a mobile passport, third, attitudes partially mediate the relationship between perception. Third, research according to (Sondakh, 2017) has a positive and significant influence where the findings are carried out to identify the determinants of user acceptance of e-government services in Indonesia. This study proves

that attitudes show a positive influence on behavioral intentions, and these results are in accordance with the opinions of Ajzen (1991); Davis (1989) and Hung et al. (2006). This finding is another contribution of this research.

In this study attitude has a positive and significant influence on behavioral intention. The same thing is with research (Kanchanatanee et al., 2014), (Shanmugam et al., 2014) and (Sondakh, 2017), which explain that attitude has a positive relationship with behavioral intention. In this finding, Attitude has a positive and significant effect. Based on the results of the calculation, the t-statistic value is 0.010 which means < 1.96 and the sig value is 0.992 above 0.05, then $H_2$ is rejected, which means that individual attractiveness has a negative and insignificant effect on attitude, meaning that changes in the value of individual attractiveness have an unidirectional effect on changes in attitude or in other words, if individual attractiveness increases, there will be a decrease in the level of Attitude and statistically has an insignificant effect. Based on the results of data processing using SmartPLS 3.2, it can be seen that the value of the Individual Attractiveness path coefficient on attitude is -0.003, which means that individual attractiveness has a negative relationship with attitude.

When viewed in previous findings which found that individual attractiveness has an influence on attitude. Research according to (Kim et al., 2015) has a positive and significant effect where these findings collectively imply that the display characteristics of digital devices, such as screen size and curvature, have a positive psychological effect by triggering their affective and hedonic qualities, especially in a mobile context. Meanwhile, this finding shows that individual attractiveness has a negative and insignificant effect on attitude, this is due to the less attractive appearance of the application.

Based on the results of the calculation, the t-statistic value is 11.519 which means > 1.96 and a sig value of 0.000 below 0.05, then $H_3$ is accepted, which means that individual attractiveness has a positive and significant effect on perceived usefulness, meaning that changes in the value of individual attractiveness have a unidirectional effect on perceived usefulness or in other words, if individual attractiveness increases, there will be an increase in the level of perceived usefulness and statistically has a significant effect. Based on the results of data processing with SmartPLS version 3.2, it is known that the path coefficient value of individual attractiveness on perceived usefulness is 0.771, which means that individual attractiveness has a positive relationship with perceived usefulness.

This finding confirms several previous studies which found that individual attractiveness has an influence on perceived usefulness. Research according to (Van der Heijden, 2003) has a positive and significant effect where these findings successfully introduce the concept of visual appeal, and by empirically validating the model against website users. Meanwhile, this individual attractiveness research has a positive and significant influence on Perceived Usefulness. The same thing with research (Van der Heijden, 2003) which explains that individual attractiveness has a positive relationship to perceived usefulness. In this finding, individual attractiveness has a positive and significant effect on perceived usefulness. This is because the attractiveness of users in using Mobile Passport is very influential.

Based on the results of the calculation, the t-statistic value is 0.860, which means < 1.96 and the sig value is 0.390 above 0.05, so $H_4$ is rejected, which means that perceived ease of use has a positive but insignificant value on attitude, meaning that changes in the value of perceived ease of use have an unidirectional effect on changes in attitude or in other words, if there is an increase in perceived ease of use, there will be a decrease in the level of Attitude and statistically has an insignificant effect. Based on the results of data processing using SmartPLS version 3.2, it can be seen that the value of the perceived ease of use path coefficient on attitude is 0.244, which means that perceived ease of use has a positive but insignificant relationship with attitude.

When viewed in previous findings which found that perceived ease of use has an influence on attitude. According to research (Kanchanatanee et al., 2014) has a positive and significant influence with a large amount where according to the results of his research shows

that for SME owners in the three southern border provinces of Thailand, attitudes towards using M-Passports are the most influential factor on the intention to use M-Passports. However, it is inversely proportional to the findings of this study where perceived ease of use has a positive but insignificant effect on attitude. This is because most users are not interested in using the Mobile Passport Application. Therefore the results of the perceived ease of use variable are not significant to attitude.

Based on the results of the calculation, the t-statistic value is 2.738 which means > 1.96 and a sig value of 0.006 below 0.05, then $H_5$ is accepted, which means that perceived ease of use has a positive and significant effect on perceived usefulness, meaning that changes in the value of perceived ease of use have a unidirectional effect on perceived usefulness or in other words, if perceived ease of use increases, there will be an increase in the level of perceived usefulness and statistically has a significant effect. Based on the results of data processing with SmartPLS version 3.2, it is known that the path coefficient value of perceived ease of use on perceived usefulness is 0.213, which means that perceived ease of use has a positive relationship with perceived usefulness. This finding confirms several previous studies which found that perceived ease of use has an influence on perceived usefulness.

When viewed in previous findings perceived ease of use has an influence on perceived usefulness. According to research (Jalil Shah & Attiq, 2018) these findings support the old understanding that individual intention to use technology is determined by perceived ease of use and perceived usefulness. In this study perceived ease of use has a positive and significant influence on perceived usefulness. The same thing is with research (Jalil Shah & Attiq, 2018) which explains that perceived ease of use has a positive relationship with perceived usefulness. In this finding perceived ease of use has a positive and significant effect on perceived usefulness. This is because someone's intention in using the M-Passport Application is because it is easy to understand so that people want to use it. Therefore, the results of the perceived ease of use variable have a significant effect on perceived usefulness.

Based on the results of the calculation, the t-statistic value is 1.742, which means < 1.96 and a sig value of 0.082 above 0.05, $H_2$ is rejected, which means that perceived usefulness has a positive and insignificant effect on attitude, meaning that changes in perceived usefulness have an unidirectional effect on changes in attitude or in other words, if perceived usefulness increases, there will be a decrease in the level of attitude and statistically has an insignificant effect. Based on the results of data processing using SmartPLS 3.2, it can be seen that the value of the perceived usefulness path coefficient on attitude is 0.549, which means that perceived usefulness has a positive but insignificant relationship with attitude.

When viewed in previous findings which found that perceived usefulness has an influence on attitude. According to research (Stefano et al., 2023) has a positive and significant influence where these findings confirm that of all the behavioral antecedents tested, perceived usefulness and attitudes towards the influence of SNS on business are shown to be the best predictors of intention to use (or continue to use) SNS for business activities. However, it is inversely proportional to the findings of this study where perceived ease of use has a positive but insignificant effect on attitude. this is because most users are not interested in using the Application. Therefore the results of the perceived ease of use are not significant to attitude.

This study is subject to several limitations. First, the use of non-probability (convenience) sampling may limit the generalizability of the findings, as the sample may not be fully representative of the broader population of M-Passport users in Indonesia. Second, the data were collected from a single immigration office, which restricts the geographic scope of the study and may not reflect variations in user behavior across different regions. Third, the reliance on self-reported responses introduces the possibility of social desirability or recall bias. Despite these limitations, the study provides valuable insights into the behavioral intention to adopt M-Passport services using the Technology Acceptance Model (TAM). Future research could expand the sampling frame, include multiple immigration offices across diverse

regions, and consider triangulating self-reported data with behavioral or usage data to enhance robustness.

## CONCLUSION

This This study explores the intention to use the M-Passport application by adding the individual attractiveness variable to the model. This is because this researcher sees the user's intention in using the M-Passport application. By looking for the root of the problem that has never been done by previous researchers to research. In this study there are several research gaps, namely, only focusing on the M-Passport Application and in previous studies no one has connected the TAM by adding individual attractiveness variables. In this study, researchers used the technology acceptance model (TAM) on the grounds that TAM theory is a theory that can be used to see various aspects that influence technology adoption.

This study has examined whether or not the influence of the variables individual attractiveness, perceived usefulness, perceived ease of use, attitude, behavioral intention. The results of this study revealed that there were only three hypotheses that were proven to have an effect while three hypotheses were not proven. The influential hypotheses are attitude affects behavioral intention, individual attractiveness affects perceived usefulness, perceived ease of use affects perceived usefulness, while those that have no effect are individual attractiveness has no effect on attitude, perceived ease of use has no effect on attitude, perceived usefulness has no effect on attitude.

This research has several practical implications. First, this study shows that individual attractiveness has an effect on perceived usefulness, which must be improved, namely having to improve the application to make it more attractive because if it is attractive, many people feel that the M-Passport application is useful for them. Second, perceived ease of use has an effect on perceived usefulness, meaning that in making M-Passport it is even easier to use, such as the language and features used in the application can be understood easily so that people feel that the M-Passport application is useful. Third, attitude has an effect on behavioral intention, meaning that the Office must make the M-Passport application more attractive so that someone's intention to use the application continues to increase and feel that the M-Passport application by adopting the TAM approach is useful for them.

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