

## ABSTRACT

The Covid-19 pandemic is a problem facing more than 200 countries including Indonesia. One of the strategies used in epidemiology to stop the spread of this disease is contact tracing. The Indonesian Ministry of Communication and Information, collaborated with several other ministries and institutions to develop an m-Health application in the form of contact tracing for Covid-19 called PeduliLindungi. One of the important things in the introduction of new technologies is exploring the determinants of users' desire to use applications. This study aims to: (1) determine the factors that influence the acceptance of PeduliLindungi, (2) determine the differences in factors that influence the acceptance of PeduliLindungi between users and non-users, (3) determine the level of acceptance of PeduliLindungi for users and non-users.

The Technology Acceptance Model (TAM) questionnaire is distributed online through social media. Subjects or respondents in this study were 582 people. Questionnaire data were analyzed by using Partial Least Square - Structural Equation Modeling (PLS-SEM) using SmartPLS software. The model is analyzed separately between user respondents, non-user respondents, and respondents as a whole. Data processing and analysis are divided into two parts, namely: (1) Evaluation of the outer model or measurement model, consisting of convergent validity, discriminant validity, reliability, and outer collinearity; (2) Evaluation of the inner model or structural model, consisting of inner collinearity, coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ), effect size ( $f^2$ ), relative impact ( $q^2$ ), path coefficient, and t-statistic bootstrapping.

The results of this study indicate that the factors that significantly influence the acceptance of PeduliLindungi are perceived usefulness, perceived ease of use, and subjective norm. Perceived usefulness is influenced by subjective norms, job relevance, output quality, result demonstrability, and the Covid-19 risk zone. Perceived ease of use is influenced by the user's age. In addition, it is known that there are differences in the factors that influence the acceptance of PeduliLindungi between users and non-users. Gender, output quality, and age are factors that have a significant effect on the PeduliLindungi acceptance model with user respondents but they do not have a significant effect in the model with non-user respondents. In the user acceptance model, gender has an effect on intention to use, output quality affects perceived usefulness, and age affects perceived ease of use. The level of acceptance of PeduliLindungi with scores on a scale of 1 to 5 was 3,879 for the user group, 3,690 for the non-user group, and 3,784 for the overall model..

**Keywords:** Covid-19, m-Health, contact tracing, PeduliLindungi, Technology Acceptance Model (TAM), Structural Equation Modeling (SEM), Partial Least Square (PLS)

## INTISARI

Pandemi Covid-19 adalah masalah yang sedang dihadapi lebih dari 200 negara termasuk Indonesia. Salah satu strategi yang digunakan dalam epidemiologi untuk menghentikan penyebaran penyakit ini adalah *contact tracing*. Kementerian Komunikasi dan Informasi Indonesia berkolaborasi dengan beberapa kementerian dan lembaga lain mengembangkan aplikasi *m-Health* berupa *contact tracing* untuk Covid-19 yang dinamakan PeduliLindungi. Salah satu hal penting dalam pengenalan teknologi baru adalah mengeksplorasi faktor penentu keinginan pengguna untuk menggunakan aplikasi. Penelitian ini bertujuan untuk: (1) mengetahui faktor-faktor yang memengaruhi penerimaan PeduliLindungi, (2) mengetahui perbedaan faktor yang memengaruhi penerimaan PeduliLindungi antara *user* dan *non-user*, (3) mengetahui tingkat penerimaan PeduliLindungi pada *user* dan *non-user*

Kuesioner *Technology Acceptance Model* (TAM) disebarakan secara *online* melalui sosial media. Subjek atau responden dalam penelitian ini sebanyak 582 orang. Data hasil kuesioner dianalisis dengan *Partial Least Square - Structural Equation Modeling* (PLS-SEM) menggunakan *software* SmartPLS. Model dianalisis secara terpisah antara responden *user*, responden *non-user*, dan responden secara keseluruhan. Pengolahan dan analisis data dibagi menjadi dua bagian, yaitu: (1) Evaluasi *outer model* atau model pengukuran, terdiri dari *convergent validity*, *discriminant validity*, *reliability*, dan *outer collinearity*; (2) Evaluasi *inner model* atau model struktural, terdiri dari *inner collinearity*, *coefficient of determination* ( $R^2$ ), *cross-validated redundancy* ( $Q^2$ ), *effect size* ( $f^2$ ), *relative impact* ( $q^2$ ), *path coefficient*, dan *t-statistic bootstrapping*.

Hasil dari penelitian ini menunjukkan bahwa faktor-faktor yang memengaruhi penerimaan PeduliLindungi secara signifikan adalah *perceived usefulness*, *perceived ease of use*, dan *subjective norm*. *Perceived usefulness* dipengaruhi oleh *subjective norm*, *job relevance*, *output quality*, *result demonstrability*, dan zona risiko Covid-19. *Perceived ease of use* dipengaruhi oleh usia pengguna. Selain itu, diketahui terdapat perbedaan faktor-faktor yang memengaruhi penerimaan PeduliLindungi antara *user* dan *non-user*. Jenis kelamin, *output quality*, dan usia menjadi faktor-faktor yang berpengaruh signifikan dalam model penerimaan PeduliLindungi dengan responden *user* namun tidak berpengaruh signifikan dalam model dengan responden *non-user*. Pada model penerimaan *user*, jenis kelamin berpengaruh pada *intention to use*, *output quality* berpengaruh terhadap *perceived usefulness*, dan usia berpengaruh terhadap *perceived ease of use*. Tingkat penerimaan PeduliLindungi dengan skor dalam skala 1 sampai 5 adalah sebesar 3,879 pada kelompok *user*, 3,690 pada kelompok *non-user*, dan 3,784 untuk model keseluruhan.

Kata kunci: Covid-19, *m-Health*, *contact tracing*, PeduliLindungi, *Technology Acceptance Model* (TAM), *Structural Equation Modeling* (SEM), *Partial Least Square* (PLS)