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# Influence of Personality on Technology Readiness and Intention to Use Online Vehicle Taxes Payment in Surabaya, Indonesia

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**Abstract.** The purpose of this study is to ascertain the relationship between personality and technology readiness and the intention to use online vehicle taxes payment (SIGNAL application) in Surabaya, Indonesia. This study used a quantitative research methodology. The structural equation modeling (SEM) data analysis method was used in this investigation. Simple random sampling methodology and probability sampling to determine the sample. There are 100 respondents served as the sample. There were six hypotheses tested in this study. The findings demonstrated a favorable and substantial relationship between personality traits such as agreeableness, conscientiousness, extraversion, and a chance to experience and technological readiness for motor vehicle tax payment using the SIGNAL application. However, personality neuroticism has a detrimental impact on a person's ability to use technology when paying motor vehicle taxes using the SIGNAL application. Furthermore, technology readiness positively and significantly impacts the intention to use the SIGNAL application to pay motor vehicle taxes.

**Keywords:** Online Vehicle Tax, Technology Readiness, Personality, Intention to Use.

## 1. INTRODUCTION

Society is currently living in a time where everything is quick, automated, online, and connected [1]. All community activities that previously operated traditionally have been redirected to shift towards digitalization due to the rapid development of technology toward digital [2]. Today's humans can accomplish things that were never thought possible in the past thanks to information and communication technology research as well [3]. With the development of this contemporary digital era, more individuals are using the internet [4]. In practically every element of people's life, the advancement of digital technology is significant, notably for the economy [5]. In the era of the Fourth Industrial Revolution, players in the market, both public and private, are competing with one another in their business operations by utilizing the benefits provided by technology and information systems, and directing manufacturing technology toward trends in automation and data exchange.

Electronic Government, also known as E-Government, is a growing trend in government circles for providing public services online. E-Government defines as a

system of governance that has been created using the power of digital technology. Public services provided by e-government can be accessible whenever, from anywhere, and 24 hours a day [6]. The community will be able to save more time and money by introducing an online system [7]. The use of E-Government is proof of the effective application of information technology in government organizations and plays a significant part in satisfying the government's objective to improve public administration services [8]. E-government has started to take off in Indonesia, where it is employed, among other things, in connection with a tax payment system that offers web-based services. State revenue has a significant impact, one of which comes from taxes [9]. According to Law No. 16 of 2009, taxes are coercively owing mandatory contributions to the state by people or entities, and the benefits received are not used directly for the benefit of the people but rather for the state's requirements.

Table 1. State Revenue Realization

| **Sources of Revenue-Finance** | **State Revenue Realization (Billion Rupiah)** | | |
|---|---|---|---|
| | **2021** | **2022** | **2023** |
| Tax Revenue | 2 006 334,00 | 2 435 867,10 | 2 443 182,70 |
| Non-Tax Revenue | 458 493,00 | 510 929,60 | 426 259,10 |

The total state revenue from taxes is higher than the non-tax revenue, according to data from the Central Statistics Agency for the years 2021–2023. This demonstrates that the taxes industry is the source of governmental income. As a result, the government of Indonesia places a high priority on tax collection. The Ministry of Finance reported that during the past 20 years, the number of Indonesians who are registered as taxpayers has increased 20-fold. 2.59 million people were enrolled as taxpayers in 2002. By 2020, that number had increased to 46.83 million, and by 2021, it had risen once more to 49.82 million.

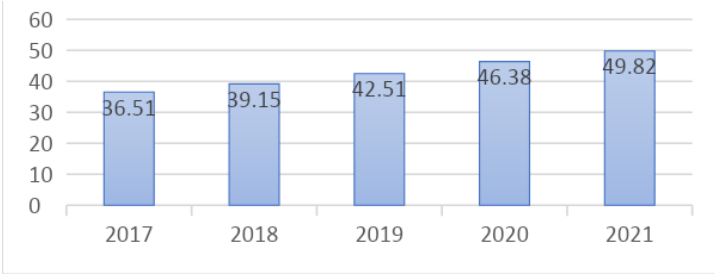


Fig. 1. Number of Taxpayers in Indonesia

There were an additional 3.85 million new taxpayers between January and September 2022, according to the Ministry of Finance's Directorate General of Taxes. Given that there are more taxpayers in Indonesia than ever the increase in tax revenue, the Directorate General of Taxes has made new changes to the country's tax code to better serve taxpayers and make it simpler for them to fulfill their tax-related obligations. Application-system is one way to modernize tax payments through the use of information technology.

The SIGNAL (National Digital Samsat) program is one type of e-system for collecting taxes. Using the National Police motor vehicle database, the population

master database, the Ministry of Home Affairs, and each provincial motor vehicle tax information system, a platform known as SIGNAL is used to digitally validate annual STNK, Payment of Motor Vehicle Tax, and Payment of Road Traffic Funds [10]. It is possible to think of the National Digital Samsat (SIGNAL) as an application that makes it easier for taxpayers to securely pay their yearly motorized vehicle tax [11].

Due to the current challenges, the community is thinking of digitizing this system. Here, the researcher conducted a pre-research survey for responses from Surabaya locals about their use of the SIGNAL application by using a Google form. The findings indicate that a large number of people have still not paid their motor vehicle taxes using the SIGNAL application. The community still faces some challenges because so many people do not yet know about the SIGNAL application.

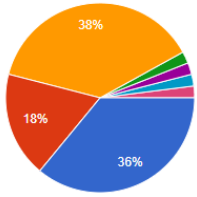


Fig. 2. Pre-Research Survey Results (Barriers to using the SIGNAL application)

In addition, a lot of people find the SIGNAL application confusing and unsatisfactory. This implies that another barrier to using the SIGNAL application is one's level of technological preparedness. Even though the system is online and makes paying taxes relatively simple at any time, many continue to put off doing so, as seen by the surrounding phenomena.

To accomplish effective and contemporary tax administration, the digitization of the system in the SIGNAL application needs the support of all parties to continue to boost taxpayer services and compliance [12]. Because a technology's significance for human interests ultimately depends on the function or contribution of its utility, readiness assessment is vital. A person's propensity to use and apply new technology in reaching their goals in both daily life and the workplace is referred to as their level of technological readiness [13]. The purpose that each person utilizes is a key component of this technology. Personality also contributes to the current technological advancement as the second internal component [14]. A very small number of qualities serve as indicators of personality, and the majority of these traits are influenced by environmental, social, and behavioral factors [15]. This claim explains how people vary depending on the kind of tool they employ [16]. According to The Big Five Theory, there are five different types of personality: agreeableness, openness to new experiences, extraversion, neuroticism, and awareness [17]. According to definitions, agreeableness is a personality attribute that has altruistic, gentle, and trustworthy characteristics and is prosocially oriented toward other people. Openness to new experiences is characterized as a personality trait with high creativity, mental complexity, daring to try a novel, unconventional things, and high levels of imagination and originality. Extraversion is a personality trait that is energetic toward the material and social environment, has a friendly disposition, is forceful and active, and exhibits pleasant emotions. A personality that exhibits negative emotions, such as anger, sadness, anxiety, and depression, is said to have neuroticism. Conscientiousness is described as a personality trait with impulse control that supports goal-oriented actions including planning, according to rules and standards, being organized, and setting priorities for work. People's feelings, thoughts, and behaviors are all influenced by their personality qualities, thus it stands to reason that personality traits will also be useful in understanding how someone plans to use new

technology. As a result, it's critical to discuss how personality affects the acceptance and use of new technology [18].

Intention to Use in taxation has been the subject of a significant amount of research. Studies have looked at technology readiness as a predictor of intention to use. The impact of technology readiness on intention to use was both considerable and not significant, according to the researchers. According to the research, technology readiness significantly affects taxpayer desire in using electronic filing [19]. According to studies, technology readiness does not significantly influence the desire in adopting mobile payment applications [20]. Technology readiness influences the desire to use the SIGNAL application. Technology readiness is also determined by a person's psychology. In addition to the intention to use, technology readiness is also influenced by internal factors from a person, namely from the side of his personality. This is considered important because everyone has different characteristics of their personality that can predict the readiness of their technology.

The authors revisited this subject by including personality as a new variable and reexamining the impact of technological readiness on intention to use in light of the aforementioned research gap.

Adopting technological advancements does not always result in success because some variables can affect how well it goes. Of course, there are still a number some technologically unprepared components in this upgrade that prevent paying this tax. The researcher is interested in researching the impact of personality on technology readiness and the intention to use the SIGNAL application to pay motor vehicle taxes in the city of Surabaya based on the context that has been presented.

## 2. LITERATURE REVIEW

### *2.1. Theory Acceptance Model (TAM)*

Technology acceptance is the act of a person voluntarily embracing new technology. User willingness is a crucial component for the effective deployment and exploitation of technology [21]. Researchers have created several models to comprehend the characteristics of technology acceptability among people during the past few decades. For many information technology-based applications, the effectiveness of this strategy has been repeatedly tested. The most well-established and significant foundation for technology acceptance, however, is Davis' TAM technology acceptance model [22]. Davis created the Technology Acceptance Model (TAM) as a research model in 1989; by incorporating TRA, it has become a potent theoretical model [23]. This TAM model analyzes the adoption of information technology using a behavioral theory approach [24]. The goal of TAM is to be able to understand user behavior and the broad factors that influence technology acceptance [25]. One of the top research models for analyzing and explaining the uptake of various technologies, such as SIGNAL applications, is the TAM model. Perceived usefulness and perceived ease of use are the two halves of the TAM model. A person's perception of the utility of adopting new information systems and technologies to enhance user performance is known as perceived usefulness, or PU. perceived ease of use (measures how much consumers are believed to benefit from adopting new technologies [26].

The degree to which a person thinks utilizing technology will save him or her effort is measured by perceived ease of usage. One of the criteria used to assess behavioral intention to use technology is perceived ease of use. People will be interested in using technology if they believe it is simple to use. On the other hand, if a piece of technology is challenging to operate, no one will utilize it. The more people

that are highly tech-ready, as is the case with SIGNAL application usage, the better equipped they will be to use this application.

### *2.2. Intention to Use*

An action made by someone motivated by something is known as having the intention to use it. One of the many reasons why someone chooses to use technology is because he thinks it is helpful, simple to use, secure, and comfortable to use. A person's decision to adopt technology is also influenced by their social environment. The intention to use is a behavioral inclination of consumers to keep utilizing a technology [27]. Intensity and usability have a direct impact on this construct. The user's attitude and degree of confidence that using this online method will boost the efficiency of paying motor vehicle taxes will determine how well they utilize the SIGNAL application. These consumers' interest prompts them to utilize the SIGNAL application, which is regarded as offering advantages in the simplicity of use and tax payment process.

### *2.3. Technology Readiness*

A person's propensity to use and apply new technology in reaching their goals in both daily life and the workplace is referred to as their level of technological readiness. Technology Readiness is a characteristic or individual difference variable that measures people's general receptivity to new technology. Technology readiness has four components: optimism, innovation, discomfort, and insecurity. Taxpayers who are ready for new technology advancements as well as those who are high on optimism and innovation as well as those who feel some unease and uncertainty [28].

### *2.4. The Big Five Personality*

Psychologists utilize the Big Five Personality method to evaluate or observe a person's personality. Initially, Lewis Goldberg presented this theory in 1981. However, who employed Allport and Odbert's multidimensional personality structure model, are credited with developing the big five ideas. The five-factor model is what Costa and McCrae refer to as the big five personality theory [29].

Human personality has five dimensions, or traits. The five components that make up the Five-Factor Model (FFM), which was based on the McCrae and Costa personality theory are as follows:

1. The intensity of a person's negative emotions is referred to as neuroticism. The tendency to exhibit negative emotions is evident in this personality trait. People with this personality are known for being excessively scared, nervous, and nervous.
2. Extraversion is a personality characteristic that has to do with sentiments of emotion and enjoyment toward oneself and the environment as well as one's level of comfort when interacting with other people.
3. The quality of openness to experience shows a willingness to try new things. The depth of interest in knowledge is the kind that is open to experience. This personality type has unique traits or traits that are indicative of it, like intelligence and a broad intellect.
4. The ability to effortlessly agree or get along with others is known as agreeableness. The degree of conformity to personal norms determines the type of this friendliness. The pleasant, accepting, and friendly traits of this personality stand out.
5. Being conscientious is the quality of being cautious or conscious. This personality is constantly focused on reaching objectives. Achievement, discipline,

obedience, and orientation are the distinctive traits of someone with this personality [30].

### *2.5. Vehicle Tax*

Due to the enormous number of motorized vehicles that increases significantly each year, the motorized vehicle tax is one of the prospective taxes [31]. The motor vehicle tax plays a significant role in local tax revenue. Whoever owns a motor vehicle, whether an individual or an organization, is subject to the motor vehicle tax. Ownership of motorized vehicles is the goal of the motorized vehicle tax.

### *2.6. SIGNAL Application*

The SIGNAL application uses the motorized vehicle database owned by the National Police, the population for which there is a master database at the Directorate General of Population and Registration Civil Engineering, the Ministry of Home Affairs, and the motor vehicle tax information system are managed to validate the Annual STNK Payment for Motorized Vehicle Tax and Payment of Road Traffic Funds digitally Associated parties without skipping over the National Police's primary duty of overseeing Ranmor operations. The tutorial may be found at https://samsatdigital.id/tutorial and the Signal app can be downloaded from the Play Store. The training website walks users through each step of using the Signal program, from signing up to adding vehicle information and paying taxes to issue E-TBPKP, E-Approval, and E-KD.

A framework for thinking about the influence of personality on technological readiness and the intention to use the SIGNAL application for paying motor vehicle tax in the city of Surabaya may be constructed based on the findings of the explanation of the variables and theories that have been discussed.

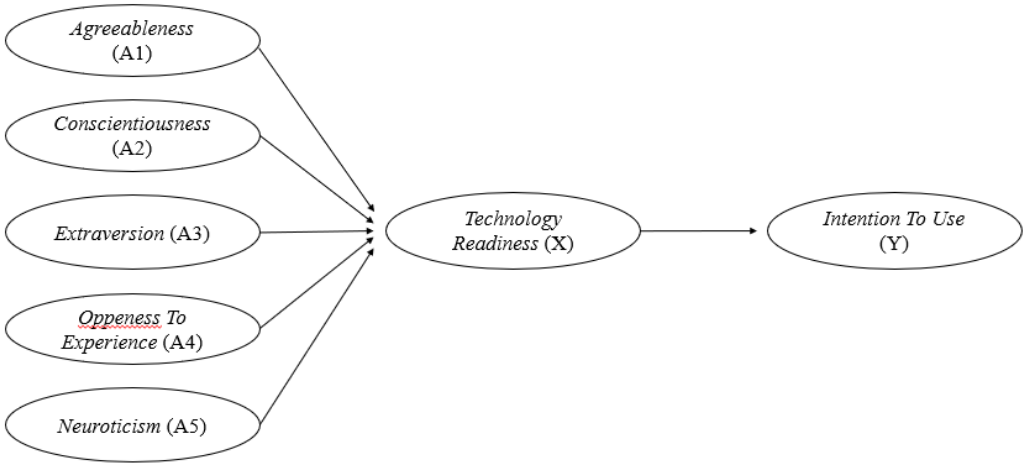


Fig. 3. Thinking Framework

H1: Agreeableness has a significant effect on technology readiness
H2: Conscientiousness has a significant effect on technology readiness
H3: Extraversion has a significant effect on technology readiness
H4: Openness To Experience has a significant effect on technology readiness
H5: Neuroticism has a significant effect on technology readiness
H6: Technology Readiness has a significant effect on the intention to use the SIGNAL application.

## 3. DATA AND METHODOLOGY

This study used a quantitative research methodology. The 1,886,790 motor vehicle taxpayers in the city of Surabaya make up the study's population. The probability sampling method and a straightforward random sampling strategy were used to determine the sample. A sample of 100 motor vehicle taxpayers is obtained by applying the Slovin formula to the sample with a precision of 10%. Both primary and secondary data are used in this investigation. A collection of questions from the Google Form *questionnaire* was used to collect primary data.

The secondary data used in this study is literature-based data that the authors gathered through studies originating from scientific journals, reference books, articles, and researchers conducting literature studies using publish or perish and VoS Viewer to compile prior studies [32] in order to form a solid research foundation. Utilizing Google Forms, questionnaires were distributed to respondents as part of the data collection process. Using SmartPLS 3.0.4, the structural equation modeling (SEM) data analysis method was used in this investigation. Data analysis from the outer model test and the inner model test are used in hypothesis testing.

## 4. RESULTS

### *4.1. Convergent Validity Test*

The convergent validity test aims to compare each item's score to the construct score, yielding a loading factor value as the outcome. When the correlation is greater than 0.70, it is said that the loading factor value is high. However, a value of 0.5–0.6 is adequate for the initial stages of the study. Using a loading factor value greater than 0.70 in this investigation. The following outcomes are provided by the SmartPLS output for the loading factor:

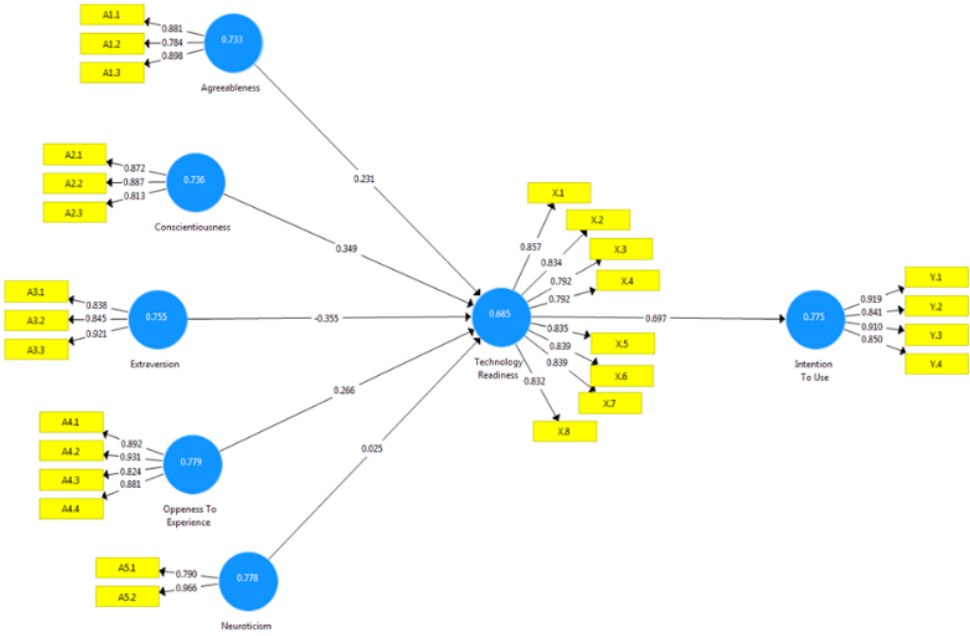


Fig. 4. Outer Model Testing

Based on the preceding image, it can be deduced that the outer loading value above 0.70 indicates that the indicators of agreeableness, conscientiousness, extraversion, openness to experience, neuroticism, technological readiness, and intention to use have satisfied the criteria. With these findings, all variables show convergent validity, which satisfies the requirements, making the indicators in this test legitimate and usable for further study.

### *4.2. Discriminant Validity Test*

There are two ways to conduct this test. First, consider the importance of cross-loading. This indicator achieves discriminant validity if the correlation between constructs and indicators is larger than the correlation with indicators from other constructs. The cross-loading value for each indicator shows in Table 2.

Table 2. Cross-Loading Value

| Indicator | *Agreeableness* | *Conscientiousness* | *Extraversion* | *Openness To Experience* | *Neuroticism* | *Technology Readiness* | *Intention To Use* |
|---|---|---|---|---|---|---|---|
| **A1.1** | **0.881** | 0.698 | 0.205 | 0.494 | -0.018 | 0.507 | 0.605 |
| **A1.2** | **0.784** | 0.410 | -0.044 | 0.231 | 0.081 | 0.374 | 0.462 |
| **A1.3** | **0.898** | 0.578 | 0.127 | 0.526 | 0.040 | 0.527 | 0.547 |
| **A2.1** | 0.549 | **0.872** | 0.280 | 0.551 | -0.101 | 0.503 | 0.418 |
| **A2.2** | 0.606 | **0.887** | 0.191 | 0.526 | -0.121 | 0.494 | 0.553 |
| **A2.3** | 0.568 | **0.813** | 0.260 | 0.585 | 0.207 | 0.483 | 0.522 |
| **A3.1** | 0.187 | 0.364 | **0.838** | 0.280 | -0.042 | -0.090 | 0.036 |
| **A3.2** | 0.098 | 0.224 | **0.845** | 0.282 | -0.043 | -0.114 | 0.031 |
| **A3.3** | 0.084 | 0.211 | **0.921** | 0.154 | -0.086 | -0.184 | -0.056 |
| **A4.1** | 0.476 | 0.582 | 0.279 | **0.892** | -0.018 | 0.485 | 0.383 |
| **A4.2** | 0.467 | 0.564 | 0.276 | **0.931** | 0.007 | 0.462 | 0.377 |
| **A4.3** | 0.439 | 0.532 | 0.076 | **0.824** | 0.138 | 0.417 | 0.398 |
| **A4.4** | 0.404 | 0.599 | 0.238 | **0.881** | 0.048 | 0.472 | 0.385 |
| **A5.1** | 0.058 | 0.003 | -0.015 | 0.099 | **0.790** | 0.032 | -0.046 |
| **A5.2** | 0.021 | -0.013 | -0.087 | 0.018 | **0.966** | 0.075 | 0.015 |
| **X.1** | 0.561 | 0.506 | -0.128 | 0.447 | -0.102 | **0.857** | 0.730 |
| **X.2** | 0.561 | 0.583 | -0.072 | 0.443 | -0.023 | **0.834** | 0.696 |
| **X.3** | 0.478 | 0.442 | -0.053 | 0.448 | -0.053 | **0.792** | 0.588 |
| **X.4** | 0.401 | 0.515 | -0.088 | 0.431 | 0.028 | **0.792** | 0.569 |
| **X.5** | 0.470 | 0.462 | -0.206 | 0.425 | 0.194 | **0.835** | 0.482 |
| **X.6** | 0.387 | 0.408 | -0.202 | 0.420 | 0.146 | **0.839** | 0.494 |
| **X.7** | 0.404 | 0.460 | -0.105 | 0.452 | 0.139 | **0.839** | 0.501 |
| **X.8** | 0.368 | 0.396 | -0.238 | 0.379 | 0.189 | **0.832** | 0.486 |
| **Y.1** | 0.593 | 0.554 | -0.049 | 0.396 | -0.003 | 0.655 | **0.919** |
| **Y.2** | 0.545 | 0.558 | 0.146 | 0.390 | -0.072 | 0.508 | **0.841** |
| **Y.3** | 0.604 | 0.563 | -0.008 | 0.451 | -0.022 | 0.675 | **0.910** |
| **Y.4** | 0.483 | 0.368 | -0.098 | 0.297 | 0.077 | 0.596 | **0.850** |

The model is considered to have superior discriminant validity in a second method, in addition to considering the cross-loading value, if the square root of the average variance extracted (AVE) for each construct is higher than the latent variables in the same column. The average extracted variance (AVE) squared value for each variable is shown in Table 3. Based on the calculation results in Table 3, it can be concluded that all variables have an AVE value of more than 0.50 so the variables in this study are declared valid.

Table 3. Quadratic Value *Average Variance Extracted* (AVE)

| | Average Variance Extracted (AVE) |
|---|---|
| ***Agreeableness*** | 0.733 |
| ***Conscientiousness*** | 0.736 |
| ***Extraversion*** | 0.755 |
| ***Openness To Experience*** | 0.779 |
| ***Neuroticism*** | 0.778 |
| ***Technology_Readiness*** | 0.685 |
| ***Intention_To Use*** | 0.755 |

### *4.3. Reliability Test*

The reliability test evaluates an instrument's consistency and dependability in measuring a concept or variable under investigation. The reliability score of a concept can be used to determine the dependability criterion. If the composite reliability score is greater than 0.70 and the Cronbach's alpha value is less than 0.60, the construct is deemed reliable. The values for each variable's composite reliability and Cronbach's alpha are listed below:

Table 4. Reliability Measurement Results

| | Cronbach's Alpha | Composite Reliability |
|---|---|---|
| **Agreeableness** | 0.818 | 0.891 |
| **Conscientiousness** | 0.820 | 0.893 |
| **Extraversion** | 0.846 | 0.902 |
| **Openness To Experience** | 0.905 | 0.934 |
| **Neuroticism** | 0.752 | 0.874 |
| **Technology Readiness** | 0.934 | 0.946 |
| **Intention To Use** | 0.903 | 0.932 |

Based on Table 4, it can be concluded that all variables have a reliability value of Cronbach's alpha of more than 0.60 and more than composite reliability of 0.70. So it can be concluded that all variables in this study have fulfilled the requirements or can be declared reliable.

### *4.4. Coefficient of Determination*

The amount of variation in the dependent variable that is completely explained by the independent variables is presented using the coefficient of determination, also known as the R-Square. The R-Square value ranges from 0 to 1, and it is divided into three categories: strong (value of 0.67), moderate (0.33), and weak (0.19). The following table shows the findings of the R-Square measures used in this study:

Table 5. Measurement Results *R-Square*

| Variable | R Square | R Square Adjusted |
|---|---|---|
| ***Technology Readiness*** | 0.527 | 0.502 |
| ***Intention To Use*** | 0.486 | 0.481 |

Based on the R-Square value above, the coefficient of determination of intention to use is 0.486 (48.6%) where this value is in the moderate category because it is > 0.33 but < 0.67. The R-Square value of 0.486 indicates that the intention to use can be explained or influenced by technology readiness by 0.486 or 48.6%, while the remaining 0.514 or 51.4% is explained by other variables outside

the analysis model. Meanwhile, the coefficient of determination for technology readiness is 0.527 or (52.7%) which is also included in the moderate category because it is > 0.33 but < 0.67. The R-Square value of 0.527 indicates that technology readiness can be explained or influenced by intention to use by 0.527 or 52.7%, while the remaining 0.473 or 47.3% is explained by other variables outside the analysis model.

### *4.5. Hypothesis Testing*

This model's structural stage seeks to ascertain whether there is interdependence between variables. The t-test is used for testing. If the significant value of the t statistic is less than 0.05, the variable is said to have an influence. The following figure (Fig.5) displays the computation's findings.

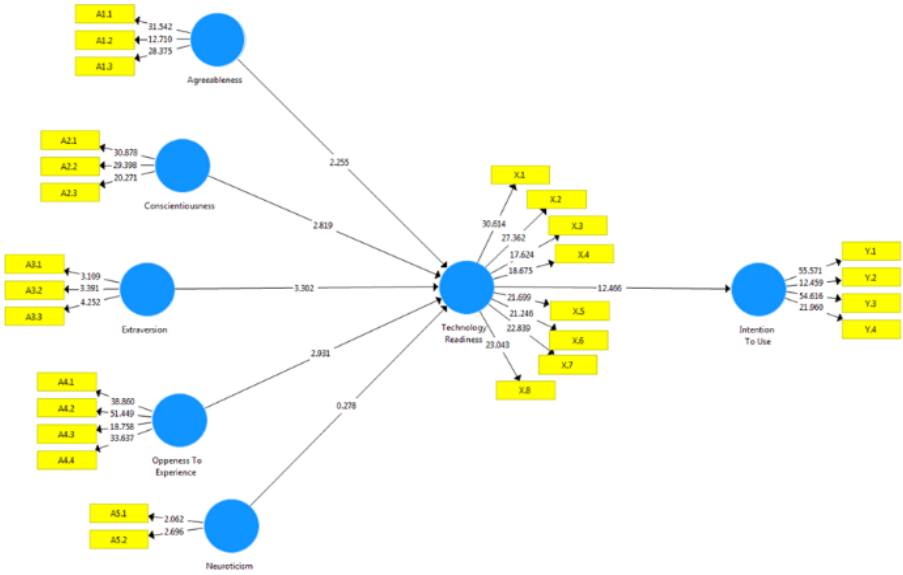


Fig. 5. Testing *Inner Model*

The following is the estimated value of each relationship between research variables:

Table 6. Value *Path Coefficient*

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| **Agreeableness -> Technology_Readiness** | 0.231 | 0.247 | 0.103 | 2.255 | 0.025 |
| **Conscientiousness -> Technology_Readiness** | 0.349 | 0.325 | 0.124 | 2.819 | 0.005 |
| **Extraversion -> Technology_Readiness** | -0.355 | -0.327 | 0.107 | 3.302 | 0.001 |
| **Neuroticism -> Technology_Readiness** | 0.025 | 0.034 | 0.090 | 0.278 | 0.781 |
| **Openness To_Experience -> Technology_Readiness** | 0.266 | 0.260 | 0.091 | 2.931 | 0.004 |
| **Technology_Readiness -> Intention_To Use** | 0.697 | 0.703 | 0.056 | 12.466 | 0.000 |

## 5. DISCUSSION

That H1 is accepted in light of the findings of the hypothesis testing that has been done. This hypothesis is supported because the relationship between agreeableness and technological readiness is consistent with Lewis Goldberg's (1981) Big Five Personality Theory. Friendly, accommodating, and inclined to readily accept any explanations are traits of someone with an agreeable disposition. They will be more able to adopt new technology without considering any potential minor hazards. The results of this study are supported by previous research conducted by Simanullang (2021) which shows that personality attitudes, especially the personality of the Big Five Personality Model, namely Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism greatly affect ASN performance in carrying out their work.

It is also well known that H2 is acceptable. According to Lewis Goldberg's (1981) Big Five Personality Theory, the conscientiousness variable has an impact on technological preparedness, which supports the validity of this concept. An individual with this conscientious personality style usually prefers to complete tasks quickly. New tools that make it simpler to accomplish tasks, like the SIGNAL app, which allows users to execute motor vehicle tax payments from any location at any time, will make people with this personality happier. The results of this study are supported by previous research conducted by Obrenovic et al. (2022) showing that conscientiousness personality traits have a positive impact on knowledge-sharing behavior.

Also acceptable is H3. According to Lewis Goldberg's (1981) Big Five Personality Theory, the extraversion variable's impact on technological preparedness is what led to this hypothesis' adoption. A person with an extraversion personality is outgoing, energetic, aggressive, and emotional. This type of disposition tends to make people more open to embracing new technologies. The findings of this study are corroborated by earlier research by Nikbin et al. (2021) that found a substantial relationship between Facebook addiction and the Big Five personality traits of conscientiousness, openness to experience, extraversion, and neuroticism.

Similar to H4, it is acceptable. The Big Five Personality theory proposed by Lewis Goldberg (1981) and its relationship to the variable openness to experience on technological preparedness account for the acceptance of this concept. A person who is open to new experiences tends to be receptive to them. If a person has this personality trait, new applications—like those connected to the SIGNAL application—will tend to make them more adaptable or more likely to accept these technological advancements. The results of this study are supported by previous research conducted by Watjatrakul (2020) showing that neuroticism and an opportunity to experience are two personality traits that moderate the relationship between perceived value for money and the intention to learn online courses.

H5 is rejected. This claim is disproved since, in accordance with Lewis Goldberg's Big Five Personality theory, the neuroticism variable has no bearing on technological preparedness. This neuroticism personality type is characterized by excessive worry. As a result, people with this neuroticism tend to detest using novel applications like the SIGNAL application. The findings of this study are corroborated by earlier research by Giovanna Priscilla & Febriyanti Salim (2023) that found no correlation between the Big Five personality traits and employee engagement. Because it has poor emotional regulation and is sensitive, neuroticism is a quality that has little bearing on employee engagement.

Last but not least, H6 is known to be accepted. According to the TAM theory proposed by (Davis, 1989), which deals with a person's perception of usability and convenience in using and utilizing new technology, the acceptance of this hypothesis

is due to the effect of the technology readiness variable on the intention to use the SIGNAL application. In this situation, a person with a high level of technological readiness is more likely to be open to using or experimenting with new technologies, such as the SIGNAL application. The findings of this study are corroborated by earlier research Nurul Afifah & Retno Pratiwi (2019), which shows that technical preparedness significantly affects taxpayer interest in using e-filling.

## 6. CONCLUSION

The purpose of this study is to ascertain the relationship between personality traits (agreeableness, conscientiousness, extraversion, opportunity to experience, and neuroticism) and technology readiness as well as the intention to use the SIGNAL application to pay motor vehicle taxes in the Indonesian city of Surabaya, Indonesia. This study's methodology was quantitative, with simple random sampling utilized to choose the sample and structural equation modeling (SEM) for data analysis. The researcher can conclude that personality agreeableness, conscientiousness, extraversion, and opportunity to experience have a positive and significant effect on technology readiness in paying motor vehicle taxes through the SIGNAL application based on the findings of the analysis and testing of the hypotheses that have been conducted. Neuroticism, on the other hand, has a detrimental impact on a person's readiness for technology. Furthermore, the intention to use the SIGNAL application to pay motor vehicle taxes is positively and significantly impacted by technology readiness.

The advantages attained by researchers in this study include the ability to apply the SIGNAL application on target, increasing the effectiveness of tax payment. Additionally, one of the study's drawbacks was the difficulty the researchers had in finding respondents over the age of 50 because people in that age group typically found it challenging to complete surveys using Google Forms. In order to boost literacy in future talks, the researcher can make one final recommendation for additional research: it is anticipated that it will be possible to include other elements that can influence the intention to use the SIGNAL application to make motorized vehicle tax payments. Second, it is hoped that prospective researchers will broaden their population coverage in subsequent studies so they are not confined to a single city.

## REFERENCES

1. Faiz F, Boyhan T, Izaak W, et al. A Literature Review: Women's Equality in the E-Commerce Information Technology Industry in the Digital Age in Developing Countries. In: *Proceedings of the 2nd International Conference on Economics, Business, and Government Challenges, EBGC 2019, 3 October, UPN ' Veteran' East Java, Surabaya, Indonesia*. European Alliance for Innovation n.o. Epub ahead of print 13 February 2020. DOI: 10.4108/eai.3-10-2019.2291828.
2. Permatasari C, Yuhertiana I, Kirana NWI. Persepsi Konsumen dalam Melakukan Pembayaran BPJS Kesehatan dengan Menggunakan E-Wallet di Masa Pandemi Covid-19. *Journal of Management and Bussines (JOMB)* 2022; 4: 1029–1037.
3. Almira A, Putri H, Yuhertiana I, et al. Technology Constraints in Online Tax Payment: Case of Surabaya City. *Journal of Economics, Business, and Government Challenges* 2019; 2: 144–151.
4. Widjanarko ARW, Yuhertiana I. Analisis Pemanfaatan E-Commerce di Masa Pandemi Covid-19 pada UMKM Db Wood Kota Surabaya. *Jurnal Ilmiah Universitas Batanghari Jambi* 2022; 22: 1556.

5. Asnawi A. Kesiapan Indonesia Membangun Ekonomi Digital Di Era Revolusi Industri 4.0. *Jurnal Ilmiah Indonesia*; 7, https://pdfs.semanticscholar.org (2022).
6. Tia Pradilla L, Patuh Priyadi M. Implementasi E-Government Pada Pelayanan E-Samsat Dalam Menciptakan Good Governance Pada Kantor Samsat Surabaya Timur. *Jurnal Ilmu dan Riset Akuntansi* 2022; 11: 1–16.
7. Rafitanuri S, Arsyida N, Gunawan R. Analisis Tingkat Kepuasan Masyarakat Terhadap Pelayanan Pembayaran Pajak Kendaraan Bermotor Berbasis Aplikasi SIGNAL Di Kantor Samsat Kota Tanjungpinang. *Jurnal Hukum, Politik Dan Ilmu Sosial (JHPIS)* 2022; 1: 92–103.
8. Rahma T, Yuhertiana I. Behavioral Intention to Use Online Tax Payments During Covid-19 Pandemic. *United International Journal for Research & Technology* 2022; 3: 52–61.
9. Rangan FD, Simanjutak AMA, Seralurin YC. Pengaruh Persepsi Kegunaan, Persepsi Kemudahan, Kesiapan Teknologi Informasi, Keamanan Dan Kerahasiaan Terhadap Minat Perilaku Penggunaan E-Filing. *Jurnal Akuntansi dan Keuangan Daerah* 2020; 15: 111–125.
10. Prasetyowati H, Lukis Panjawa J. Teknologi Dan Distribusi Pajak Mendukung Kualitas Pembangunan Manusia. *TRANSEKONOMIKA: Akuntansi, Bisnis dan Keuangan* 2022; 2: 23–36.
11. Silamukti AA. National Digital Samsat (SIGNAL) Program Effectiveness by the System Perspective in the Jurisdiction of Polda Metro Jaya, Indonesia. *Internasional Journal of Multicultular and Multireligious Understanding* 2022; 9: 369–379.
12. Ramdani D. Pengaruh Penerapan E-Registration, E-Filing Dan E-Billing Terhadap Kepatuhan Wajib Pajak. *ISEI Accounting Review* 2019; III: 58–66.
13. Parasuraman A. *Technology Readiness Index (TRI) A Multiple-Item Scale to Measure Readiness to Embrace New Technologies*, https://www.researchgate.net/publication/240274124_Technology_Readiness_Index_Tri_A_Multiple-Item_Scale_to_Measure_Readiness_to_Embrace_New_Technologies (2000, accessed 14 June 2023).
14. Tinitah R, Haryanta. *Peran Kepribadian terhadap Kesiapan Mengikuti Pembelajaran Online pada Mahasiswa*, http://etd.repository.ugm.ac.id/ (2020).
15. Octaviana N. Analisis Elemen-Elemen Fraud Hexagon Theory Sebagai Determinan Fraudulent Financial Reporting. *Jurnal Akuntansi*. Epub ahead of print 30 August 2022. DOI: https://doi.org/10.46806/ja.v11i2.895.
16. Arpaci I, Karatas K, Kusci I, et al. Understanding the social sustainability of the Metaverse by integrating UTAUT2 and big five personality traits: A hybrid SEM-ANN approach. *Technol Soc*; 71. Epub ahead of print 2022. DOI: 10.1016/j.techsoc.2022.102120.
17. Pilch I, Wardawy P, Probierz E. The predictors of adaptive and maladaptive coping behavior during the COVID-19 pandemic: The Protection Motivation Theory and the Big Five personality traits. *PLoS One* 2021; 16: e0258606.
18. Pemasyarakatan L, Klas W, Malang IA, et al. *Hubungan Dimensi Kepribadian The Big Five Personality dengan Tingkat Kesejahteraan Psikologis Narapidana*, http://alhikmah.iain-jember.ac.id/ (2020).
19. Nurul Afifah I, Retno Pratiwi A. Analisis Persepsi Keamanan Dan Kerahasiaan, Kegunaan, Kemudahan Dan Kesiapan Teknologi Informasi Yang Mempengaruhi Minat Wajib Pajak Dalam Penggunaan E-Filing Dikantor Pelayanan Wajib Pajak Pratama Pondok Gede 2019. *Jurnal Akuntansi dan Pasar Modal* 2019; 2: 1–24.
20. Senalasari W, Rafdinal DW. Peran Kesiapan Teknologi dalam Minat Menggunakan Aplikasi Pembayaran Seluler di Masa Pandemi Covid-19. *Jurnal Riset Bisnis dan Investasi* 2021; 7: 22–32.

21. Kamal SA, Shafiq M, Kakria P. Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). *Technol Soc*; 60. Epub ahead of print 1 February 2020. DOI: 10.1016/j.techsoc.2019.101212.
22. Carter L, Belanger F. The Utilization of E-Government Services: Citizen Trust, Innovation and Acceptance Factors. *Inf Syst J* 2005; 15: 5–25.
23. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q* 1989; 13: 319–339.
24. Soneka PN, Phiri J. A Model for Improving E-Tax System Adoption in Rural Zambia Based on the TAM Model. *Open Journal of Business and Management* 2019; 07: 908–918.
25. Tahar A, Riyadh HA, Sofyani H, et al. Perceived ease of use, perceived usefulness, perceived security and intention to use e-filing: The role of technology readiness. *Journal of Asian Finance, Economics and Business* 2020; 7: 537–547.
26. Lu C-T, Huang SY, Lo P-Y. An empirical study of on-line tax filing acceptance model: Integrating TAM and TPB. *African Journal of Business Management*; 4, https://www.researchgate.net/publication/267839012_An_empirical_study_of_on-line_tax_filing_acceptance_model_Integrating_TAM_and_TPB (2010).
27. Rahmawati RN, Narsa IM. Intention to Use e-Learning: Aplikasi Technology Acceptance Model (TAM). *Owner* 2019; 3: 260.
28. Boon-itt S. Managing self-service technology service quality to enhance e-satisfaction. *International Journal of Quality and Service Sciences* 2015; 7: 373–391.
29. Jawara H. *The Big Five personality traits and borrowers behavior: evidence from group-based lending in Gambia*, https://www.rsepconferences.com/my_documents/abstracts/q1E95P4o1.pdf (17 April 2017).
30. Octavia N, Hayati K, Karim M. Pengaruh Kepribadian, Kecerdasan Emosional Dan Kecerdasan Spritual Terhadap Kinerja Karyawan. *Jurnal Bisnis dan Manajemen* 2020; 16: 130–144.
31. Widajantie TD, Anwar S. Pengaruh Program Pemutihan Pajak Kendaraan Bermotor, Kesadaran Wajib Pajak, Sosialisasi Pajak, Dan Pelayanan Terhadap Kepatuhan Wajib Pajak Kendaraan Bermotor (Studi Pada Kantor Bersama Samsat Surabaya Selatan). *BAJ (Behavioral Accounting Journal)* 2020; 3: 129–143.
32. Mulya O., Yuhertiana I. Hedonic and Utilitarian Motivation of Accounting Students as Z Generation in Using Mobile Banking. JDAH 4(1), 10-18, https://doi.org/10.33847/2712-8148.4.1_2

**Aims and Objectives**

Published online by ICS two times a year, Journal of Digital Science (JDS) is an international peer-reviewed journal which aims at the latest ideas, innovations, trends, experiences and concerns in the field of digital science covering all areas of the scholarly literature of the sciences, social sciences and arts & humanities. The main topics currently covered include: Artificial Intelligence Research; Digital Economics, Education, Engineering, Finance, Health Care.

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