Determinants of Use of Government Credit Cards in the Work Unit of the Ministry of Public Works and Public Housing in DKI Jakarta

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Abstract---This research aims to find out the determinants of the use of government credit cards (KKP) in the work unit of the Ministry of public works and public housing in DKI Jakarta. This type of explanatory quantitative research with a unit of analysis of individual government employees who work in the Work Unit at the Ministry of PUPR who uses KKP in their daily work activities. Researchers distributed questionnaires to employees who used KKP in their daily work activities at the PUPR Ministry work unit. The number of respondents was 110 and analyzed using the PLS-SEM method with SmartPLS 4 software. The results of the study proved that performance expectancy, effort expectancy, and social influence had a positive effect on behavioral intention and facilitating conditions and behavioral intention had a positive effect on user behavior, while perceived financial cost had no effect negative on behavior intention. The conclusion that can be drawn is that the UTAUT model can explain the determinants of the use of KKP within the scope of the Ministry of PUPR work units domiciled in DKI Jakarta.

Keywords---effort expectancy, financial risk, government credit cards, performance expectancy, social influence, UTAUT.

Introduction

The Government Credit Card (KKP) is a kind of corporate credit card as a payment medium from the State Budget (APBN) to control state financial liquidity and can encourage financial inclusion and reduce the amount of money in circulation (Peraturan Menteri Keuangan Republik Indonesia, 2018). The use of KKP can reduce the dangers associated with having cash, including risks of loss, fraud, and risks to the safety of cash holders, reduce potential real costs and opportunity costs, and reduce fictitious bills (Hutabarat et al., 2021). However, KKP faces the challenge of user acceptance as a transaction instrument with a high level of complexity (Yadnya, 2022). This is evident from several studies such as (Yulianti & Nurhazana, 2021) which found that the effectiveness of implementing KKP in the Dumai KKPN work area was still lacking due to human factors that did not quickly adapt to technological developments. (Nordhoff et al., 2020), also found internal factors from government employees that hindered the use of KKP. Other research also proves the same thing (Novitasari, 2020), regarding the
implementation of KKP in the work area of the Magelang KKPN, that there is a factor of human resources/government employees in implementing this use.

Research on the use of KKP using the Technology Acceptance Model (TAM) approach found that in addition to perceived convenience, perceived benefits, reliability and certainty of KKP affect user satisfaction (Yadnya, 2022). Departing from this research, this research will more comprehensively examine the factors that influence the use of KKP using the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by (Venkatesh et al., 2003). The reason for using UTAUT is because it is a newer model and is considered a better instrument and a synthesis of the eight existing models of technology acceptance (Theory of Reasoned Action/TRA, Technology Acceptance Model/TAM, Motivational Model/MM, Theory of Planned Behavior/TPB, Combine TAM & TPB/C-TAM-TPB, Model of PC Utilization/MPCU, Innovation Diffusion Theory/IDT, and Social Cognitive Theory/SCT) (Ling et al., 2011; Hamrul et al., 2013; Afiana et al., 2019). UTAUT uses the independent variables performance expectancy, effort expectancy, social influence, facilitating condition, and the dependent variables behavioral intention and use behavior.

The use of KKP is also inseparable from risks, one of which is an additional fee/surcharge for transactions. By the provisions of the Minister of Finance Regulation (PMK) Number 196 of 2018, only stamp duty fees can be charged to the State Budget. This means that surcharges cannot be charged to the APBN and if they appear in a transaction they can become a financial risk for individual KKP users. In this context, it is interesting to see perceived financial risk in the form of a surcharge as a factor in using KKP in this study (Feng et al., 2022; Ashraf, 2022; Syukry et al., 2022; Hadi et al., 2018). This is also a novelty in technology acceptance research on the use of KKP.

KKP as part of the money supply mechanism (UP) is the reason for the research being carried out in the work unit (Satker) of the Ministry of Public Works and Public Housing (PUPR). This is because the Ministry of PUPR is the Ministry/Institution with the top three ranking budget allocations in the last three years (KoKKPs.com, 2020, tempo.com, 2021, KuKKPranBisnis, 2022). The amount of operational spending will also increase or decrease in line with the increase or decrease in the ceiling of K/L (Puspitasari et al., 2019). More specifically, this research takes the location of work units domiciled in DKI Jakarta because DKI Jakarta is the economic center in Indonesia with 40 percent of all transactions being non-cash transactions (merdeka.com, 2021) which are a form of card transactions including KKP. The purpose of this study was to determine the determinants of using government credit cards in the work unit of the Ministry of public works and public housing in DKI Jakarta.

Literature Review

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT has four main determinants in the research model that can influence behavioral intention and user behavior, namely performance expectancy, effort expectancy, social influence, and facility conditions. (facilitating conditions) in addition to 4 moderators namely gender, age, experience, and voluntariness of use (Venkatesh et al., 2003). Performance Expectancy (PE) or performance expectation is defined as the extent to which an individual believes that using a system or technology will help the individual to achieve good performance at work (Venkatesh et al., 2003; Aprianto, 2022). Effort Expectancy (EE) or business expectation is defined as the level of ease associated with using a system or technology. Social Influence (SI) or social influence is defined as the level of confidence a person is influenced by the sectoral environment to use a system or technology (Venkatesh et al., 2003; Aprianto, 2022).
Facilitating Conditions (FC) or facility condition is defined as the extent to which an individual believes that the organizational and technical infrastructure exists to support the use of a system or technology (Venkatesh et al., 2003; Aprianto, 2022). Behavioral Intention (BI) in TRA is described as the extent to which a person is willing to try and use a behavior (Leong et al., 2013). Use Behavior (UB) is a behavior that refers to an ongoing commitment to the level of use of the product, then the level of use refers to the frequency of use and the quality of use (Black, 1983; Park, 1998).

Perceived financial risk

Perceived risk perception of risk is the perception of someone deciding to take an action or activity (Nicolaou & McKnight, 2006; Kamal et al., 2020). Perceived risk is categorized into five aspects in previous studies (Jacoby & Kaplan, 1972; Bhukya & Singh, 2015; Kamal et al., 2020), namely perceived functional risk, perceived financial risk, perceived physical risk, perceived psychological risk, and perceived social risk. In the theory of perceived risk (TPR), the perceived risk from the perspective of consumer behavior refers to consumers' subjective expectations of events that result in losses (Featherman & Pavlou, 2003; Trinh et al., 2020). Perceived Financial Risk (PFR) is one aspect of a perceived risk that can be defined as the inability to bear the costs associated with using a particular technology or system (Kamal et al., 2020). In TPR, perceived financial risk is a strong aspect of a perceived risk that negatively affects the intention to use (Featherman & Pavlou, 2003; Martins et al., 2014; Trinh et al., 2020).

Research Framework and Hypothesis Development

Departing from the determinant model in the UTAUT model, the researchers modified it by adding perceived financial risk that negatively affects behavioral intention. The direction of the negative relationship reflects that the greater the risk, the lower the level of use. Besides that, researchers ruled out the use of moderator variables in the UTAUT model (gender, age, experience, and voluntariness of use) following several previous studies which in general had not implemented UTAUT completely (Oliveira et al., 2014; Dwivedi et al., 2019). From this elaboration, the proposed research model in Figure 3.1 and the development of the hypotheses are disclosed in the following description.

![Figure 2. Research model](image-url)

(Williams et al., 2015), used to find that performance expectancy is included in the category of the best predictor variable in UTAUT besides behavioral intention. (Nordhoff et al., 2020), found that performance expectancy is one of the three strongest predictors of behavioral intention. (Trojanowski & Kulak, 2017; Puspitasari et al., 2019; Lee et al., 2019), found that performance expectancy has a significant effect on behavioral intention. (Abu-Taieh et al.,
2022), found that performance expectancy has a positive and significant effect on behavioral intention. Based on this description, the following hypothesis 1 is proposed:

**H1: Performance expectancy of using KKP has a positive effect on behavioral intention to use KKP.**

Effort expectancy has construction roots in 3 models (TAM, MPCU, & IDT) which in the early stages of implementing technology have a more prominent influence on behavior (Venkatesh et al., 2003). Effort expectancy has a positive and significant influence on behavioral intention (Puspitasari et al., 2019; Hidayat et al., 2020; Izkair & Lakulu, 2021; Abu-Taieh et al., 2022). Based on this description, the following hypothesis 2 is proposed:

**H2: The effort expectancy of using KKP has a positive effect on behavioral intention to use KKP.**

(Hidayat et al., 2020) and (Puspitasari et al., 2019), found that social influence has a significant influence on behavioral intention. (Wei et al., 2021) and (Abu-Taieh et al., 2022), in line with previous research, found that social influence has a positive and significant influence on behavioral intention. Based on the elaboration, the following hypothesis 3 is proposed:

**H3: Social influence on the use of KKP has a positive effect on behavioral intention to use KKP.**

(Hidayat et al., 2020), shows that perceived risk has a significant effect on behavioral intention. (Trinh et al., 2020), found that perceived risk has a negative effect to intention with the greatest degree of impact of the other independent variables used (social influence, perceived usefulness, & perceived ease of use). (Lee et al., 2019), found a negative effect of the risk variable on the intention to use mobile payment services. Another research conducted by (Yang et al., 2015), shows that perceived financial risk is the strongest negative factor that hinders consumer acceptance of m-payments. (Wei et al., 2021), found that perceived financial risk has the biggest negative effect on the use of mobile payments. Based on the elaboration, the following hypothesis 4 is proposed:

**H4: Perceived financial risk of KKP users has a negative effect on behavioral intention to use KKP.**

Facilitating conditions do not have a significant effect on behavioral intention if there is effort expectancy, but according to empirical studies, it has a direct significant effect on user behavior (Venkatesh et al., 2003). Facilitating conditions have a significant effect on user behavior (Dwivedi et al., 2019; Hidayat et al., 2020). Based on this description, the following hypothesis 5 is proposed:

**H5: Facilitating conditions for KKP users have a positive effect on the user behavior of using KKPs.**

(Williams et al., 2015), using weight analysis found that behavioral intention is included in the category of the best predictor variables in UTAUT besides performance expectancy. (Hidayat et al., 2020), found that behavioral intention has a significant relationship with user behavior. (Hooda et al., 2022), found that the intention to use the e-government system affects e-government use behavior.

**H6: Behavioral intention to use KKP has a positive effect on the user behavior of KKP**

**Method**

This research is explanatory quantitative research with an analysis unit of individual government employees who work in the Work Unit at the Ministry of PUPR who use KKP in their daily work activities. Sampling in this study used a convenience sampling technique combined with snowball sampling. Researchers collected data sources in the form of primary data obtained through surveys by distributing questionnaires in the form of google forms. The questionnaire to be used is a type of questionnaire using a Likert scale.

Researchers were unable to obtain data related to monitoring reports of KKP holders/users in the work units at the Ministry of PUPR. This resulted in the population in this study cannot be known with certainty. Regarding the unknown population size, the Lemeshow formula can be used (Riyanto & Hatmawan, 2020), as follows:
\[ n = \frac{Z^2 \times P(1-P)}{d^2} \]

Information:
- \( n \) = minimum number of samples required
- \( Z \) = \( Z \) statistic for 95% confidence level or sig. 0.05 (1.96)
- \( P \) = maximum proportion of estimates (0.5)
- \( d \) = absolute precision/alpha/sampling error 10% (0.1)

Based on the formula above, the resulting \( n \) value is 96.04 or can be rounded up to 97. The data analysis method used in this study is the partial least square structural equation modeling (PLS-SEM) method. PLS-SEM with SmartPLS has a sequence of main steps, namely the evaluation of the measurement model (outer model) and the evaluation of the structural model (inner model) (Abdullah, 2015).

Testing the research hypothesis was carried out through the structural model (inner model) assessment procedure in the PLS-SEM method with the help of SmartPLS 4.0 software (Leong et al., 2013). The criteria for accepting or rejecting the hypothesis are as follows:

1) Hypotheses H1, H2, H3, H5, and H6 are accepted if the path coefficient shows a positive number and the significant influence between the independent variable and the dependent variable has a \( p \)-value <0.05;
2) Hypothesis H4 is accepted if the path coefficient shows a negative number and the significant effect between the independent variable and the dependent variable has a \( p \)-value <0.05.

Results and Discussion

The distribution of questionnaires through the Google form was carried out from 12 May 2023 to 26 May 2023. The total number of questionnaires received was 113. After examining the questionnaires received, 3 questionnaires could not be processed because they included outlier data and caused a bias in construct relationships, so several 110 questionnaires can be processed. Model evaluation is done by testing the measurement model (outer model) and structural model (inner model).

Outer model testing is done to determine the validity and reliability of the model. (Hair, 2017), the rules of thumb for the outer model reflective test are as follows:

1) The outer loading value must be more than 0.70;
2) Convergent validity using the average variance extracted (AVE) value must be > 0.50;
3) Discriminant validity using the criteria value of the heterotrait-monotrait ratio (HTMT) <0.90;
4) Reliability by looking at the composite reliability (CR) value must be more than 0.70.

While testing the inner model is done to predict the causality relationship between latent variables. (Hair, 2017), describes several stages in the structural model testing procedure as follows:

1) Testing the collinearity problem, using the variance inflation factor (VIF). The VIF value is declared to have no collinearity problems if it has a value < 5;
2) Testing the significance and relevance of the model relationship is with a \( p \)-value that must be lower than 0.10 (10% significance), 0.05 (5% significance), or 0.01 (1% significance). In terms of relevance, the path coefficient is typically between −1 and +1, with a coefficient close to −1 indicating a strong negative relationship and one close to +1 indicating a strong positive relationship;
3) Testing the predictive strength of the model by looking at R2 with a criterion of R2 values of 0.75, 0.50, or 0.25 for endogenous constructs can be described as substantial, moderate, and weak respectively.

The results of testing the outer model and inner model with the SmartPLS 4.0 application can be seen as follows:
In Table 1 it can be seen that the AVE values for all constructs have met the requirements, namely > 0.50, this means that convergent validity has been fulfilled. In the table, it can also be seen that the value of the HTMT ratio for all construct relationships is <0.90, this indicates that the discriminant validity requirements have been fulfilled. CR values for all constructs have also been > 0.70, this indicates that reliability has been met. Furthermore, the outer loading value for each indicator can be seen in Figure 3 and meets the requirements, namely > 0.70.

![Figure 3. Outer Loading, Path Coefficient, and R2](image-url)
The results of the multicollinearity test, significance test, path coefficient, and model predictive power (R²) can be seen in Table 2 and Figure 3. It can be seen that the VIF value of the test results in Table 2 illustrates that there is no collinearity problem because all constructs have a VIF value < 5. The significance test by looking at the p values yields all constructs except PFR->BI which has a significant value <0.05. The predictive power of the model by looking at R² resulted in a value of 0.576 for the BI construct and 0.696 for the UB construct, these values are included in the moderate criteria.

The test results are used in the decision to accept or reject the research hypothesis. There are six hypotheses proposed, five hypotheses are accepted and one hypothesis is rejected. From Table 2 it can be seen that hypothesis 1 in the form of performance expectancy has a positive effect on behavioral intention in using KKP, with a p-value of 0.019 and a path coefficient of 0.252 thus H1 is accepted. For Hypothesis 2, in the form of effort expectancy, it has a positive effect on behavioral intention in using KKP, with a p-value of 0.001 and a path coefficient of 0.349, thus H2 is accepted (Escobar-Rodríguez & Carvajal-Trujillo, 2014; Ayaz & Yanartaş, 2020). For hypothesis 3, social influence has a positive effect on behavioral intention in using KKP, with a p-value of 0.005 and a path coefficient of 0.236, thus H3 is accepted. For Hypothesis 4, in the form of perceived financial risk, it has a negative effect on behavioral intention in using KKP, with a p-value of 0.265 and a path coefficient of -0.051, thus H4 is rejected. For hypothesis 5 in the form of facilitating conditions that have a positive effect on user behavior in the use of KKP, with a p-value of 0.000 and a path coefficient of 0.317, thus H5 is accepted. For hypothesis 6, in the form of behavioral intention has a positive effect on user behavior in using KKP, with a p-value of 0.000 and a path coefficient of 0.578, thus H6 is accepted. The output hypothesis testing model from the SmartPLS 4.0 application which describes the relationship and test results can be seen in Figure 3. For hypothesis 6, in the form of facilitating conditions that have a positive effect on user behavior in the use of KKP, with a p-value of 0.000 and a path coefficient of 0.317, thus H5 is accepted. For hypothesis 6, in the form of behavioral intention has a positive effect on user behavior in using KKP, with a p-value of 0.000 and a path coefficient of 0.578, thus H6 is accepted. The output hypothesis testing model from the SmartPLS 4.0 application which describes the relationship and test results can be seen in Figure 3. For hypothesis 6, in the form of facilitating conditions that have a positive effect on user behavior in the use of KKP, with a p-value of 0.000 and a path coefficient of 0.317, thus H5 is accepted. For hypothesis 6, in the form of behavioral intention has a positive effect on user behavior in using KKP, with a p-value of 0.000 and a path coefficient of 0.578, thus H6 is accepted. The output hypothesis testing model from the SmartPLS 4.0 application which describes the relationship and test results can be seen in Figure 3.

H1, H2, H3, H5, and H6 have been successfully accepted, so this study fully supports the UTAUT model (Venkatesh et al., 2003). In this study, it has been proven that performance expectancy, effort expectancy, and social influence have a positive effect on behavioral intention and facilitating conditions, and behavioral intentions have a positive effect on user behavior. Several previous studies which are in line with the results of the H1 test in this study are from research (Abu-Taieh et al., 2022; Nordhoff et al., 2020; Lee et al., 2019; Trojanowski & Kulak, 2017). Several previous studies which are in line with the results of the H2 test in this study are from research (Abu-Taieh et al., 2022; Hidayat et al., 2020; Izkair & Lakulu, 2021). Several previous studies which are in line with the results of

| No. | Hypothesis | Construct | VIF | Original sample (O) T statistics (|O/STDEV|) | P values | Decision |
|-----|------------|-----------|-----|---------------------|----------|----------|
| 1.  | H1 PE -> BI | PE        | 2.040 | 0.252 | 2.066 | 0.019 | ACCEPTED |
| 2.  | H2 EE -> BI | EE        | 2.831 | 0.349 | 3.107 | 0.001 | ACCEPTED |
| 3.  | H3 SI -> BI | SI        | 2.040 | 0.236 | 2.546 | 0.005 | ACCEPTED |
| 4.  | H4 PFR -> BI | PFR      | 3.224 | -0.051 | 0.627 | 0.265 | REJECTED |
| 5.  | H5 FC -> UB | FC        | 1.035 | 0.317 | 3.733 | 0.000 | ACCEPTED |
| 6.  | H6 BI -> UB | BI        | 2.016 | 0.578 | 6.751 | 0.000 | ACCEPTED |
the H3 test in this study are from research from (Abu-Taieh et al., 2022; Hidayat et al., 2020; Izkair & Lakulu, 2021; Hair, 2017). Several previous studies which are in line with the results of the H5 test in this study are from research from (Hidayat et al., 2020; Dwivedi et al., 2019). Several previous studies which are in line with the results of the H6 test in this study are from research (Hooda et al., 2022; Hidayat et al., 2020; Williams et al., 2015).

H4 in this study was rejected, this means that this study failed to prove the negative effect of perceived financial risk on behavioral intention. There is previous research that explains financial risk does not affect intention, including research (Kassim & Ramayah, 2015), mentions that financial risk does not affect intention because management has mitigated various potential problems and research. (Beneke et al., 2012), states that favorable condition has been formed and minimizes the potential for the emergence of problems that have been anticipated. Researchers suspect that perceived financial risk does not affect behavioral intention because not all respondents know that a surcharge has the potential to be a personal risk. PMK Number 196 of 2018 states that when using KKP, only stamp duty costs are borne, there is no mention of steps regarding further handling of costs or profits that have arisen as a result of using KKP. Further arrangements in the technical instructions or implementation instructions in the internal environment of the satker may already be explained regarding mitigation related to this matter by being more careful in choosing merchants, but researchers do not have access to this (Tamilmani et al., 2021; Jahanshahi et al., 2020; Gertler et al., 2012).

Conclusion

The determinants of acceptance of the use of KKP in the Ministry of PUPR work units in DKI Jakarta can be explained by the UTAUT model. This is evidenced by the test results which show the positive influence of performance expectancy, effort expectancy, social influence on behavioral intention, and the positive influence of facilitating conditions and behavioral intention on user behavior. In contrast to the results of testing the effect of perceived financial risk on behavioral intention, the results obtained have no effect.

The above can also be further interpreted that Ministry of PUPR employees who work on work units in DKI Jakarta have a high level of confidence that using KKP will improve performance, like the ease of payment that KKP has, and are more confident in using KKP when suggested by superiors, and coworkers. Surcharges may not be considered financial risk because the percentage exposed is small if you choose a merchant carefully. These factors will then increase the desire to use KKP. The increased desire for use will also increase the frequency of use and the proportion of UP use with KKP rather than cash UP.

This research has limitations related to obtaining the number of respondents. The number of respondents who filled out the questionnaire could have been increased, but researchers were constrained by access to communication with several parties who were expected to be the key to spreading the questionnaire. Suggestions for further research is to plan a better approach to parties who can be the key to spreading the questionnaire.

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References


