RFID TECHNOLOGY ADOPTION IN ONE CARD SYSTEM: CASE STUDY IN ECONOMICS FACULTY JENDERAL SOEDIRMANUNIVERSITY

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ABSTRACT

In the last few decades, scholars and practitioners have increasingly tried to understand the factors that influence technology acceptance. This research are also analysis factors to affect acceptance new technology namely Radio Frequency Identification. A distinguishing of previous study is this research use theory that rarely used to a technology not yet known namely innovation diffusion theory. Where this theory explain 5 characteristic acceptance technology, but in this research only choose 2 characteristics are used as variable namely relative advantage and complexity. Besides this research analyze the moderation can affect acceptance namely by review from side self-personality accepter. Test results using Moderated Regression Analysis (MRA) showed significance between variable. Implication this research stated that In an effort to continuously improve the use intention of RFID technology. This can do by providing intensive information related to various advantages of the use of RFID technology to improve safety, comfort, effectiveness and efficiency of the service system, and need to consider the individual personality factors in the implementing process of RFID technology.

Keyword: *Diffusion of innovation theory, relative advantage, complexity, self-personality, use intention.*

INTRODUCTION

Background

In this global era, increasing knowledge and technologyforces some countries to follow this development in order to fulfill their need. Include in Indonesia, tecnology is the main tool in accessing information.Thefunction of technology is very important. With tecnology, the citizen will get some easy ways to do some kinds of activity, from the simple until the complex activity, based on Prayitno in Ilyas (2001), technology is the whole package of idea,method, material,technique, which is used in certain time and place to fulfill human necessity. So it is important to use the potential of human resources to develop the new innovation of tecnology. If an innovation is hard to be found, so an adoption of technology can be an alternative. By seeing and analyzing one technology, people can see the

appropriate potential with the condition of adoption.

Technology adoption in an educational institution is required, in which the agency requires technology that can facilitate the administrative process of learning. One technology that is suitable for adoption by educational institutions in the technology is RFID (radio frequency identification). The use of RFID-based technology has been increasingly used in the community, especially outside the country, the applications that have been used are as pay for toll roads without stopping, for attendance at schools, for the self-system sales in supermarkets, and many other examples . The applications are still not widely used in Indonesia. By using RFID, many advantages to be gained (that will increase the effectiveness and the efficiency).

From the description above, we can see that the object of research, Economy Faculty of Unsoed, is a formal educational place which can be separated from the technological things above. Nowadays, Economy Faculty of Unsoed still give and use the manual facility in educational system such as in library, students attendance and vehicle security in parking area and it can be concluded that it is still not efficient and effective for the college student and also college bureaucracy. To solve the problem, RFID technology was the appropriate technology. Students and staffs will only have one RFID card as the identification card and they can use the cards for many purposes such as borrowing books, parking vehicles and students attendance list. This provides easy,

comfortable, effective and efficient security system.

However, it is not easy, in terms of technology analysis and preparation on elements Unsoed economics faculty academic community to be involved in its use was not necessarily have the appropriate eligibility. Therefore this study is to determine the feasibility of RFID technology in a multifunction card is in terms of the level of willingness and readiness of the elements of this academic community.

The study was based on research that has been done by songpol kulviwat, 2007. Where previous research research about factors that affect desire receive technological innovation by using an attribute theory TAM (Technology Acceptance Model). To research this author try to do an analysis of the different theory that is Innovation Diffusion Theory (Roger, 1983).

Problem Statement
1. Does relative advantage influence on use intention?
2. Does complexity influence on use intention?
3. Does self-personality have a moderated on relative advantage and complexity toward use intention?

Research Limitation
The focus of this study only examined at the level of desire to adopt an RFID technology through innovations 2 characteristic diffusion theory (Roger, 1995). Which was moderated by self-personality in the Economic Faculty University of Jenderal Soedirman.

Research Purpose

1. To identify influence technology relative advantage toward use intention.
2. To identify influence technology complexity toward use intention.
3. To identify self-personality have a moderated on relative advantage and complexity toward use intention.

Research Benefit

1. Theoretical Benefits
   a. The result of this research could give a description about RFID technology in order to support development of education quality
   b. The result of this research could give an understanding about RFID technology for viewers generally, and writers his-self specially.
2. Aplicative Benefits
   a. The result of this research could give a positive input in order to enhance quality of education for Economic Faculty
   b. The result of this research could give recommendation that applicable for stakeholders in case when they've ready
   c. The research could give a consideration for viewers and researcher to make further assessment about the usage of the card based RFID technology

Model and Hypotheses Development
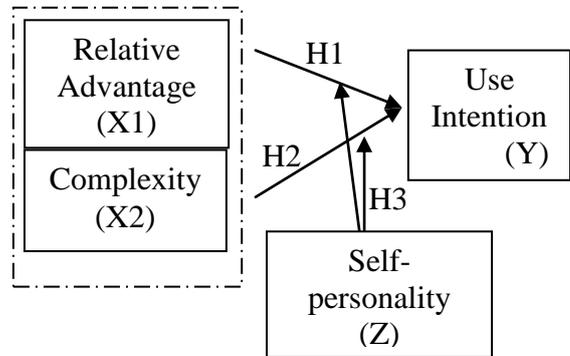
H1: *Relative advantage have a influence on use intention.*
H2: *Complexity have a influence on use intention.*
H3: *Self-personality have a moderated on relative advantage and complexity toward use intention.*

RESEARCH METHODOLOGY

Population

Population in this research is all of employee and student in Economic Faculty, University of Jenderal Soedirman.

Sample

Based on data from the population there that total student is 3960 people counted until February 2013 (source: Bapendik FE Unsoed) and total employees was 101 people (source: Subag Kepegawaian FE Unsoed), so at least samples obtained according the calculations using Slovin formulas with standard error 10%, students obtained the result 97.5 so it rounded 98 and employees 50.2 so it rounded 50.

Operational Definition of Research Variable

1. Relative Advantage (X1)

Relative advantage is where people belief that with the adoption of the latest IT product, it will enhance their job performance. Empirical research indicates that perceived relative advantage and the related concept of perceived usefulness significantly impact attitudes for use intentions (Rogers 2003, p.229). indicator:

    1) Economic profitability
    2) Decreases in discomfort
    3) Social prestige
    4) Savings in time and effort
    5) Effectiveness

2. Complexity (X2)

Complexity, defined by Rogers and Shoemaker (1971) as "the degree to which an innovation is perceived as relatively difficult to understand and use" (p.154). Indicator :

    1) Transaction capabilities
    2) The use flexible and simple
    3) Easy to learn and aplication
    4) Controllable security

3. Self-personality (Z)

Personality is one individual personality that is stable from time to time. Concept personality can be used to some purpose as: selection employees or college students development personality, team building, research on personality, career guidance and the process of learning (Stanton and matthews, 1995).

    1) Openness to experience
    2) Conscientiousness
    3) Extraversion
    4) Agreeableness
    5) Neuroticism

4. Use Intention (Y)

An indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Ajzen, 2002).

    1) Suitability
    2) Work more quickly
    3) Productivity
    4) Job performance

Test of Research Instrument

1. Validity Test

Prior to testing the hypotheses, first conducted test on the questionnaire validity. Way is to correlate each of these statements with a total score using the product moment correlation formula, as follows (Umar, 2002):

$$r = \frac{N(\sum XY) - (\sum X \sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

2. Reliability Test

To determinethe extent to whichameasuring instrument(questionnaire) can be trustedorrelied upon, reliability testing is conducted test thereliability ofthe questionnaireusedcronbachalphat echnique, by the following formula(Umar, 2002):

$$r_{ii} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\Sigma \sigma_b^2}{\sigma_1^2} \right)$$

3. Classical Assumption Test

Classical basic assumptions of Ordinary Least Square (OLS) that must be met for the proposed regression model indicates a valid equation of Best Linear Unbiased

Estimator (BLUE) are as follows (Ghozali, 2007):

a. Normality Test

Normality test was used to determine whether the observed data are normally distributed or not. In this research data tested for normality by using Kolmogorov-Smirnov analysis. Data was considered normal if the value of asymptotic significance (2 tailed) > 0.05.

b. Multicollinearity Test

Multicollinearity means a perfect linear relationship or certainly among some or all of the variables that explain in a regression model. The regression model should not multicollinieriety between independent variables, this event multicollinieriety the regression coefficient on the variable X can not be determined and infinite error standards. To find the multicollinieriety, it can be seen from the large VIF (Variance Inflation Factor) to the output of SPSS analysis.

c. Heteroscedastisity Test

Heteroscedastisity is spreading variant diversity. Heteroscedastisity is used to test whether regression model variants occur from the residual inequality or an observation to other observations. Heteroscedastisity is to detect symptoms uses *park gleyser* test. If value *sig* is greater than 0.05 or $t_{statistic} < t_{table}$, it can be concluded not happen heteroscedastisity (Suliyanto, 2005).

4. Multiple Regression Analysis

In this research, to test the significance effect of relative advantage and complexity on use intention was used multiple regression analysis with the equationasfollows (Ghozali, 2007):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

5. Moderated Regression Analysis

Moderated regression analysis is used to test the third hypothesis, that is testing to self-personality moderates the effect of relative advantage and complexity on use intention with the equationasfollows (Ghozali, 2007):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z + \beta_4 X_1 Z + \beta_5 X_2 Z + \varepsilon$$

To test the goodness of fit is used F-test, with the formula asfollows (Suliyanto, 2005):

$$F = \frac{R^2/(k-1)}{1 - R^2/(n-k)}$$

To test the partially effect is measuredusing the t-test, with formula asfollows (Suliyanto, 2005):

$$t = \frac{b_j}{S_{bj}}$$

Acceptanceof HypothesisCriteria:

Based on degrees offreedom = (n -k) andlevel of confidence = 95% or α=0.05,then:

6. Hypothesis Testing

Hypotesis 1:

H_0 is accepted if: $t_{statistic} \leq t_{(\alpha/2;n-k)}$

Relative advantagehas no significant positive effect on use intention.

H_0 is rejected if: $t_{statistic} > t_{(\alpha/2;n-k)}$

Relative advantagehas significant positive effect on use intention.

Hypotesis 2:

H_0 is accepted if:$t_{statistic} \leq$ t $_{(\alpha/2; n-k)}$ Complexityhas no significant positive effect on use intention.

H_0 is rejected if:$t_{statistic} >$ t $_{(\alpha/2; n-k)}$ Complexityhas significant positive effect on use intention.

Hypotesis 3

H_0 is accepted if: $-t_{(\alpha/2; n-k)} \leq t_{statistic} \leq$ t $_{(\alpha/2; n-k)}$.Self-personality doesn't moderates the effect of relative advantage and complexity on use intention

H_0 is rejected if:$t_{statistic} < -t_{(\alpha/2; n-k)}$ or $t_{statistic} >$ t $_{(\alpha/2; n-k)}$

Self-personality moderates the effect of relative advantage and complexity on use intention.

RESULT OF RESEARCH AND DISSCUSSION

Results Analysis and Discussion

1. Validity Test

    Based on data in table 1,2, 3,and 4 (appendix), it could be seen that the $r_{statistic}$ value of all items each was greater than the critical value (r $_{table}$) of 0.374 at confidence level of 95%. Thus, all items of relative advantage, complexity, and self-personality variable are valid and could be used as the data collection instrument.

2. Reliability Test

    Based onresults summary of reliability test in table 5 (appendix), it could beseen thatthe coefficientof reliability(r_{total}) for relative advantage, complexity, self-personality and use intention variable each was greater

thanthe critical value, so all thequestionsforeach variable is reliableandcould be usedas data collection instrument.

3. Multiple Regression Analysis

a. Classical Assumptions Test

1) Normality Test Result

    Based on the test result in Table 6 (appendix), it was obtained the asymptotic significant value of standardized residual variable was 0.244 greater than 0.05, so that the data of multiple regression model revealed a normal distribution.

2) Multicollinearity Test Result

    Based on theresults ofVarianceInflationFactor(VIF) test in Table 7 (appendix), it was known that the VIF value of relative advantage andcomplexity variable each was 1.177 less than 5. Henceit could be stated that there was nomulticollinearityin theregression model.

3) Heteroscedasticity Test Result

    Based on the calculation ofpark gleyser test in Table 8 (appendix), it was obtained that the significant value ofrelative advantage variable was 0.122 and the significant value of complexity variable was 0.994 each was greater thanthe value ofα(0.05). Based on the evidence, it could be statedthat there was no heteroscedasticity in regression model.

4) Multiple Regression Analysis

   1. Equation

Based on Table 9 (appendix), the multiple regression equation was as follows:

$$Y = 3.545 + 0.349X_1 + 0.315X_2$$

In statistical regression equations above could be stated as follows:

a) Regression coefficient of relative advantage shown the positive value of 0.349. It shown the positive effect of relative advantage on use intention.

b) Regression coefficient of complexity shown positive value of 0.315. It shown the positive effect of complexity on use intention.

2. Goodness of Fit

a) Coefficient of Determination

Coefficient of determination showed the ability of the model in the series of variable changed in the next variation. From the results of regression analysis, coefficient of determination was 0.526. It meant that use intention could be explained by relative advantage and complexity variable for 52.60 percent, while the remaining of 47.40 percent was explained by other variables that were not examined.

b) F-test

Based on calculations with significant level(α) = 0.05 was obtained the value of $F_{statistic}$ was 83.189, while the F_{table} value of 3.00. Because the value of $F_{statistic}$ was greater than the value of F_{table}, it could be stated that multiple regression model from the effect of relative advantage and complexity on use intention was fit with research data (goodness of fit).

3. First and Second Hypotheses Testing with t-Test

To test the partially effect of relative advantage and complexity on use intention was used t-test. From the analysis results with confidence level of 95% ($\alpha/2 = 0.025$) and degree of freedom (n - k), so the t_{table} value was 1.984 then the calculation results obtained:

a) The $t_{statistic}$ value of relative advantage variable of 7.601 ($t_{statistic} > t_{table}$).

b) The $t_{statistic}$ value of complexity variable of 6.659 ($t_{statistic} > t_{table}$)

Based on the result of multiple regression analysis, it could be seen that $t_{statistic}$ value of relative advantage was greater than the value of t_{table}. Therefore, the first

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hypothesis which stated that relative advantage had a significant influence on use intention was accepted.

Based on the result of multiple regression analysis, it could be seen that $t_{statistic}$ value of complexity was greater than the value of t_{table}. Therefore, the second hypothesis which stated that complexity had a significant influence on use intention was accepted.

4. Modereted Regression Analysis
a. Classical Assumptions Test
1) Normality Test Result

Based on the test result in Table 10 (appendix), it was obtained the asymptotic significant value of standardized residual variable was 0.793 greater than 0.05, so that the data of modereted regression model revealed a normal distribution.

2) Multicollinearity Test Result

Based on theresults ofVarianceInflationFactor(VIF) test in Table 11 (appendix), it was known that the VIF value of relative advantage variable was 1.197, VIF value of complexity variable was 1.190, the VIF value of self-personality variable was 1.067, VIF value of moderating_1 variable was 1.230 and the VIF value of moderating_2 variable was 1.214 each was less than 5.

Henceit could be stated that there was nomulticollinearityin the moderated regression model.

3) Heteroscedasticity Test Result

Based on the calculation ofpark gleyser test in Table 12 (appendix), it was obtained that the significant value of relative advantage variable was 0.701, the significant value ofcomplexity variable was 0.422, significant value of self-personality variable was 0.233, the significant value ofmoderating_1 variable was 0.358 and the significant value ofmoderating_2 variable was 0.868 each was greater thanthe value of α(0.05). Based on the evidence, it could be statedthat there was no heteroscedasticity in moderated regression model.

4) Moderated Regression Analysis
a. Equation

Based on Table 13 (appendix), it could be seen the moderated regression equation as follows:

$$Y = -0.033 + 0.438X_1 + 0.408X_2 + 0.138Z + 0.118X_1.Z + 0.112X_2.Z$$

In statistical regression equations above could be stated as follows:

a) Coefficient regression of relative advantage shown positive value of 0.438. It

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shown the positive effect of relative advantage on use intention.

b) Coefficient regression of complexity shown positive value of 0.408. It shown the positive effect of complexity on use intention.

c) Coefficient regression of self-personality show positive value of 0.138. It shown the positive effect of self-personality on use intention.

d) Coefficient regression of moderating_1 variable show positive value of 0.118. It shown the positive effect of self-personality variable on the causal relationship between relative advantage and use intention.

e) Coefficient regression of moderating_2 variable show positive value of 0.112. It shown the positive effect of self-personality variable on the causal relationship between complexity and use intention.

b. Goodness of Fit

a) Coefficient of Determination

Coefficient of determination shows the ability of the model in the series of variable changes in the next variation. From the results of moderated regression analysis, it was obtained the coefficient of determination of 0.584 and the value of adjusted R square was 0.570. It meant that use intention could be explained by relative advantage, complexity, self-personality, moderation_1 and moderation_2 variable for 57.00 percent, while the remaining of 43.00 percent were explained by other variables.

b) F-test

Based on calculationswith significant level(α) = 0.05 isobtained the value of $F_{statistic}$of41.223, while the F_{table}valueis2.21. Because the value of$F_{statistic}$ was greater than the value of $F_{table,}$ it could be stated that moderated regression model from the effect of relative advantage and complexity, both direct and indirect through self-personality on use intention was fit with research data (goodness of fit).

c) Third Hypothesis Testing with t-Test

To test the partially effect of relative advantage, complexity, self-personality, moderating_1 as well as moderating_2 variable on use intention was used t-test. From the analysis results with $\alpha/2 = 0.025$

and degree of freedom (df) = (n - k), so the t_{table} value was ±1.984 then the calculation results obtained:

a) $t_{statistic}$ value of relative advantage variable of 7.526 ($t_{statistic} > t_{table}$).

b) $t_{statistic}$ value of complexity variable of 7.028 ($t_{statistic} > t_{table}$)

c) $t_{statistic}$ value of self-personality variable of 2.509 ($t_{statistic} > t_{table}$).

d) $t_{statistic}$ value of moderating_1 variable of 2.270 ($t_{statistic} > t_{table}$)

e) $t_{statistic}$ value of moderating_2 variable of 2.279 ($t_{statistic} > t_{table}$)

Based on the result of moderated regression analysis, it was obtained the $t_{statistic}$ value of moderating_1 and moderating_2 variables each greater than the value of t_{table}. Therefore, the third hypothesis which states that self-personality moderates the effect of relative advantage and complexity on use intention was accepted.

Discussion of Results

This result proved that relative advantage had a significant influence on use intention of RFID technology. This condition indicates the higher level of relative advantage, so will be stronger intention of employees and students to use RFID technology at Jenderal Soedirman University. This finding was consistent with result of meta-analysis conducted by Tornatzky and Klein's (1982) which found that relative advantage and complexity were the only innovation characteristics that were consistently related to adoption and/or utilization decisions. This result also consistent with the result of previous study conducted by Karahanna, et., al., (1999) which proved that relative advantage was consistently important for both adopters and users of Windows.

This result also proved that complexity had a significant influence on use intention of RFID technology. This condition indicated the higher level of complexity, so will be stronger intention of employees and students to use RFID technology at Jenderal Soedirman University. This finding was consistent with previous result conducted by Cazier, et., al., (2008) which found that both effort expectancy and performance expectancy had positive effects on intention to adopt residual RFID technology. This result also supported the result of meta-analysis conducted by Tornatzky and Klein's (1982) which found that relative advantage and complexity were the only innovation characteristics that were consistently related to adoption and/or utilization decisions. This result was also consistent with the result of previous study conducted by Karaiskos, et. al., (2008) which proved that perceived ease of use (PEOU) has a direct positive effect on perceived usefulness (PU) of RFID ticketing system.

This result proved that self-personality moderates the effect of relative advantage and complexity on use intention of RFID technology. This condition indicated the better of self-personality was always followed

by stronger effect of relative advantage and complexity toward increasing to use intention of RFID technology at Jenderal Soedirman University. This finding was consistent with the Social Cognitive Theory by Bandura (1986) is based on the premise that environmental influences such as social pressure or unique situational characteristics, cognitive and other personal factors including personality as well as demographic characteristics, and behavior were reciprocally determined. This finding was also consistent with the opinion of Ajzen (2006) that Perceived Behavioral Control have moderate the effect of intention on behavior, in the way that a favorable intention produces the behavior only when perceived behavioral control is strong. This result was consistent with previous research conducted by Meuter, et., al., (2003) which prove that personality trait moderate the effect of new technology on consumers' attitude and behaviour towards technology. This finding also was consistent with previous research conducted by Kusumasondjaja (2009) which proved that three personal characteristics (namely: self-efficacy, locus of control and technology readiness) had moderating effect on dissatisfaction and switching intention of SST facilities in the stores relationships.

CONCLUSSION AND IMPLICATION

Conclusion
1. Relative advantage had a significant influence on use intention of RFID technology. It meant that the higher level of relative advantage was always followed by the stronger intention of employees and students to use RFID technology at Economic Faculty, University of Jenderal Soedirman.
2. Complexity had a significant influence on use intention of RFID technology. It meant that the higher level of complexity was always followed by the stronger intention of employees and students to use RFID technology at Economic Faculty, University of Jenderal Soedirman.
3. Self-personality moderates the effect of relative advantage and complexity on use intention of RFID technology. It meant that the better of self-personality was always followed by stronger effects of relative advantage and complexity toward increasing to use intention of RFID technology at Economic Faculty, University of Jenderal Soedirman.

Implication
Generally, innovation technology can improve the quality of education and can create high social prestige. This can be done by Economics Faculty University of Jenderal Soedirman, because it can support the University's vision who wanted to make a "World Class University". One way is to follow the development of the latest technology that would support educational activities.

In an effort to continuously improve the use intention of RFID technology, the management of Economic Faculty University of

Jenderal Soedirman needs to consider policy related to relative advantage, complexity and personality variable. This can do by providing intensive information related to various advantages of the use of RFID technology 'to improve safety, comfort, effectiveness and efficiency of the service system, and need to consider the individual personality factors in the implementing process of RFID technology.Basically the value of relative advantage is always a consideration when the technology will be applied, so expected in the duty management system supplies should consider how big the profit level and if applicable how the technology is easy of used by users according to the value of complexity that has been examined.

In observation and interviewing to employees, many employees are indeed less following the development of information technology, this causes the employee to be a lazy personal innovating and less respect to learn new technologies. in this case we recommend the management Faculty of Economics always provide informations about innovation technology to the employees and to students as well as to implement new technology campus, students don't feel shocked in applying it. As well as conducting special training for employees regarding new technologies so that employees are always ready to study the development of the technology. If this is done on a regular basis then it will effect on private employees better and can improve the work achievement.

Based on the results of the study, it was found to be deficient in terms of completeness of technical technology RFID. The suggestions for further research is to provide additional RFID technology with design and components used in the library, parking areas, and attendance. As well as the design of one card system that will be used as the core tool in the application of RFID technology. It is with the aim to help make the design of RFID technology real and can be immediately applied. And then for further research can also add another variable in this study aren't researched but felt able to influence on use intention, such as cost, compatibility, triability, observability and. As well as the target respondennya not just students and employees, but with their lecturer and scope can be done University.

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APPENDIX

Table 1. Validity Test Result of Relative Advantage Variable (X_1)

Items	$r_{statistic}$	r_{table} (Confidence Level of 95%)	**Judgment**
1	0.741	0.374	Valid
2	0.830	0.374	Valid
3	0.804	0.374	Valid
4	0.834	0.374	Valid
5	0.774	0.374	Valid

Table2: Validity Test Result ofComplexity Variable (X_2)

Items	$r_{statistic}$	r_{table} (Confidence Level of 95%)	**Judgment**
1	0.855	0.374	Valid
2	0.766	0.374	Valid
3	0.738	0.374	Valid
4	0.795	0.374	Valid

Table3. Validity Test Result of Self-Personality Variable (Z)

Items	$r_{statistic}$	r_{table} (Confidence Level of 95%)	**Judgment**
1	0.782	0.374	Valid
2	0.796	0.374	Valid
3	0.718	0.374	Valid
4	0.689	0.374	Valid
5	0.731	0.374	Valid

Table 4. Validity Test Result of UseIntention Variable (Y)

Items	$r_{statistic}$	r_{table} (Confidence Level of 95%)	Judgment
1	0.789	0.374	Valid
2	0.801	0.374	Valid
3	0.835	0.374	Valid
4	0.805	0.374	Valid

Table 5. Result Summary of ReliabilityTest

Variables	Reliability Coefficient	r_{table} (Confidence Level of 95%)	Judgment
X_1	0.852	0.374	Reliable
X_2	0.797	0.374	Reliable
X_3	0.796	0.374	Reliable
Y	0.819	0.374	Reliable

Table 6. Normality Test Result of Multiple Regression Model

One-Sample Kolmogorov-Smirnov Test

		Standardized Residual
N		153
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.99339927
Most Extreme Differences	Absolute	.083
	Positive	.057
	Negative	-.083
Kolmogorov-Smirnov Z		1.025
Asymp. Sig. (2-tailed)		.244

a. Test distribution is Normal.

b. Calculated from data.

Table 7. Multicollinearity Test Result of Multiple Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	3.545	.918			
	Relative Advantage (X1)	.349	.046	.464	.850	1.177
	Complexity (X2)	.315	.047	.406	.850	1.177

a. Dependent Variable: Use Intention (Y)

Table 8. Heteroscedasticity Test Output of Multiple Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.223	.574		.388	.699
	Relative Advantage (X1)	.045	.029	.136	1.554	.122
	Complexity (X2)	.000	.030	.001	.007	.994

a. Dependent Variable: Abresid

Table 9. Result Summary of Multiple Regression Analysis

No.	Variables	Regr Coef.	$t_{statistic}$		t_{table}
1.	Relative advantage (X$_1$)	0.349	7.601	>	1.984
2.	Complexity (X$_2$)	0.315	6.659	>	1.984

Constant	=	3.545
Coef. of Determination	=	0.526
$F_{statistic}$	=	83.189

Table 10. Normality Test Result of Modereted Regression Model

One-Sample Kolmogorov-Smirnov Test

		Standardized Residual
N		153
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.98341510
Most Extreme Differences	Absolute	.053
	Positive	.048
	Negative	-.053
Kolmogorov-Smirnov Z		.650
Asymp. Sig. (2-tailed)		.793

a. Test distribution is Normal.

b. Calculated from data.

Table 11. Multicollinearity Test Result of Modereted Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	-.033	.054			
	Relative Advantage (X1)	.438	.058	.438	.835	1.197
	Complexity (X2)	.408	.058	.408	.841	1.190
	Self-Personality (Z)	.138	.055	.138	.937	1.067
	Moderating_1	.118	.052	.134	.813	1.230
	Moderating_2	.112	.049	.134	.824	1.214

a. Dependent Variable: Use Intention (Y)

Table 12. Heteroscedasticity Test Result of Modereted Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.487	.034		14.216	.000
	Relative Advantage (X1)	.014	.037	.034	.384	.701
	Complexity (X2)	-.030	.037	-.071	-.805	.422
	Self-Personality (Z)	-.042	.035	-.101	-1.197	.233
	Moderating_1	.031	.033	.083	.923	.358
	Moderating_2	-.005	.031	-.015	-.167	.868

a. Dependent Variable: Abresid

Table 13. Summary Result of Moderated Regression Analysis

No.	Variables	Regression Coefficient	$t_{statistic}$		t_{table}
1.	Relative advantage	0.438	7.526	>	1.984
2.	Complexity	0.408	7.028	>	1.984
3.	Self-personality	0.138	2.509	>	1.984
4.	Moderation_1	0.118	2.270	>	1.984
5.	Moderation_2	0.112	2.279	>	1.984
Constant			= -0.033		
Coefficient of Determination			= 0.584		
$F_{statistic}$			= 41.223		