TEACHERS' ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN SENIOR HIGH SCHOOL ECONOMICS INSTRUCTION

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ABSTACT

This research has been meant to (1) describe the adoption of ICT in economics instruction, (2) discover the influence of the characteristics of innovation variables to the adoption of ICT, (3) discover the influence of the environment variables to the adoption of ICT in economics instruction, (4) discover the influence of the affective variable to the adoption of ICT in economics instruction, and (5) discover the influence of the demographic variables to the adoption of ICT in economics instruction.

This research employed the combination of the quantitative and qualitative approaches known as the mixed method. The qualitative data were results of interviews with economics teachers, economics instruction supervisors, students, school principals, and on-service-teacher trainers. The qualitative data were analyzed qualitatively through the steps of data reduction, data presentation, and conclusion drawing.

The research results showed the following conclusions. First, most teachers often employed information and communication technology in economics instruction. The widely used application programs were Microsoft Office application programs, particularly Power Point and Microsoft Word. Some other programs were used but with low frequencies, namely (a) internet application programs for browsing, weblog, and email purposes, (b) spreadsheet application programs, particularly Microsoft Excel, (c) Adobe Reader application programs, and (d) multimedia application programs. Second, the ICT adoption models which contain the innovation characteristics variable, the environment variable, the affect-towards-use variable, and the demographic variable worked well in explaining the diversity of the adoption in economics instruction. Third, the variables in the group of characteristics of innovation variable which had significant influence to the adoption of ICT were voluntariness, relative advantage, result demonstrability, and ease of use. Meanwhile, those which did not have significant influence were those of compatibility, image, trialability, and visibility. Fourth, all variables in the group of environment variable which consisted of social influence facilitating conditions had significant influence to the adoption of ICT in economics instruction. Fifth, the variable of affect toward use consisted of the feeling of liking and the feeling of interest had significant influence to the adoption of ICT in economics instruction. Sixth, the group of demographic variable was not good predictors in relation to the adoption of ICT in economics instruction. None of the five sub-variables in the demographic variable, which consisted of school status, age, gender, experience and duration in training participation, had any significant influence in the adoption of ICT in economics instruction.

Key words: adoption, information and communication technology (ICT), teachers, economics instruction innovation

Economics learning needs to be delivered contextually to accommodate the context of the lives of young people including the development of technology that characterizes their lives. They are a generation that grew up with digital technology, quick access to information from various sources, more like interacting via the virtual world. Don Tapscott (2009: 16) termed The Net Generation for these people or who were born in 1977-1997.

Various forms of diffusion of education policy will not have much meaning if it is not matched by an adequate level of acceptance. In this context, the problem is not a lot of economic teachers utilize a variety of media-based ICT in learning. Need to be investigated factors that influence the adoption of ICT in learning economics in high school. By knowing these factors can formulate effective policies.

Some experts expressed various theories adoption or diffusion of innovation, but Surry & Ely (2002: 185) reveals that the diffusion of innovation theory of Rogers (1995) is a theory that most referenced. This is in line with the experience of research on educational technology carried out by Ricradson (2009: 167) reveals that Innovation Diffusion Theory (IDT) is effective in revealing the adoption of ICT. Important determinant of technology adoption according to this theory is that the variables called perceived attributes of innovation or also referred to the innovation characteristics (Agarwal and Prasad 1997: 565; Moore & Benbasat, 1991: 194; Rogers, 2003: 222; Askarany 2009: 2051). Attribute or characteristic that is a relative advantage, compatibility, trialability, result demonstrability, ease of use, and visibility.

There are several determinants of technology adoption. One determinant of technology adoption is the user's perception of technology by Rogers (2003: 222) and Askarany (2009: 2051) referred to the perceived attributes of innovation or also referred to the innovation characteristics (Agarwal and Prasad 1997 : 565; Moore & Benbasat, 2001: 194). Attributes or characteristics that are Relative Advantage, Compatibility, Trialability, Result demonstrability, Ease of Use, Visibility, and Voluntariness.

Rogers (2003: 287) and Richardson (2009, 160) proposes demographic variables as determinants of adoption of information technology. In the context of the adoption of ICT in learning economics, variable demographic may take the school status where teachers work, age of teacher, gender, teaching experience, and training followed by teacher.

Venkatesh et al., (2003: 451-454) revealed some of the variables that determine one's intention in using such technology is social influence the facilitating conditions the two variables hereinafter be referred to as environment variables. Besides Thompson, et al, (1991: 127) adds a variable Towards Affect Use that affect the intention to use a personal computer.

Variable voluntariness is a determinant variables of innovation adoption. Volunteerism is the degree to which the use of innovation is considered as voluntary, or free will (Moore & Benbasat, 1991: 195; Venkatesh et al., 2003: 431). The decision adopting an innovation can be free, it could also be not free because of the prevailing social system. Mochtar Lubis (2012: 23) describes six characteristics of human Indonesia, the third characteristic of the Indonesian people are soulless feudal. Teachers in Indonesia tend to discount obedience to superiors, including the use of ICT. Thus, in the context of the use of ICT in the learning economy, the use of ICT will tend to have a negative relationship with volunteerism.

Relative advantage is the degree to which an innovation is perceived as better / superior than ever before. It can be measured from several aspects, such as economic, social prestige, comfort, satisfaction and others. The greater the relative superiority felt by adopters, the faster these innovations can be adopted (Moore & Benbasat, 1991: 195; Rogers, 2003: 15, Venkatesh, 2003: 431; Luo et al., 2009: 2207). The use of ICT will provide some added values. One of the added value is the value added in the form of aesthetic-emotional.

Compatibility is the degree to which the innovation is considered to be consistent with prevailing values, past experiences and needs adopters. For example, if an innovation or new ideas particular not in accordance with the values and norms, then innovation can not be adopted easily as with innovations that match (Moore & Benbasat, 1991: 195; Rogers, 2003: 15 ; Venkatesh, 2003: 431; Luo et al., 2009: 2207).

Image is the degree to which the use of an innovation thought to increase one's image or status in the social system. This indicates the extent to which users an innovation would add prestige or social status. (Moore & Benbasat, 1991: 195; Venkatesh et al., 2003: 431). Image as a construct has diuangkapkan by Rogers (1995) as part of the relative advantages and is used as an independent predictor as determining the use of technology. In this case meant that the use of technology will

contribute to improving the social status of a potential technology users (Agarwal & Prasad, 1997: 562).

The result demonstrability is the ability to feel the results of using innovations including the observability and communicability (Moore & Benbasat, 1991: 203; Venkatesh et al., 2003: 431; Luo et al., 2009: 2207). It has similarities with the concept of Rogers (2003: 16) on the ability to be observed (observability) is defined as the degree to which the results of an innovation can be seen by others. The easier a person to see the results of an innovation, the more likely the person or group of people are adopting.

Visibility is the degree to which one can see other people using the system in the organization. Therefore, the concept of visibility associated with potential adopters to see the innovation in the context of adoption (Venkatesh et al., 2003: 431). The high visibility of an innovation will give birth to curiosity among potential adopters and innovation in the use of early regardless of the benefits to be gained (Agarwal, 1997: 570).

Trialability is the degree to which an innovation can be tested certain extent. An innovation that can be test-piloted in real settings will generally be quickly adopted. So, in order to rapidly adopted, an innovation should have to express lead (Moore & Benbasat, 1991: 195; Rogers, 2003: 16). Ketercobaan significantly affect the adoption of technology in learning (Ilie, et al: 2009: 1101-1106).

Ease of use is the degree to which innovation is seen as something that is easy to understand and use, the concept is the opposite of the concept of complexity. The hassle is the degree to which innovation is regarded as a difficult to understand and use (Rogers, 2003: 16; Venkatesh et al., 2003: 431). There are some specific innovations that can be easily understood and used by adopters and some are otherwise. The easier it is to be understood by the adopters, the faster an innovation can be adopted (Rogers, 2003: 16). In relation to mobile phone technology Jennifer Blechar & Hanseth (2007: 145), revealing that the complexity of the technology will lead to difficulties in implementation of these technologies.

Social influence is defined as the extent to which an individual perceives the interests that are trusted by others who would influence it using the new system (Venkatesh et al., 2003: 451; Jogiyanto, 2007: 321). Rogers, (2003: 23-24) and Tatnall (2009: 3293) called it the Nature of The Social System is the nature of a set of interconnected units that engage in problem solving together to achieve a common goal.

Facilitating conditions is defined as the extent to which a person believes that the organizational and technical infrastructure available to support the system (Vankatesh, et al., 2003: 453). These limits are in line with the restrictions used Thompson (1991: 129), which revealed that the construct is a condition that facilitates objective factors in the environment that makes an action observers agree that easy to do.

Towards Affect Use are feelings of joy, cheerful, happy, or depressed, unhappy, or hate which are linked by a person with a certain activity (Thompson, et al, 1991: 127; Jogiyanto, 2007: 327). Thompson et al. (1991: 126) reveals the hypothesis that there is a positive relationship between the perceived use of a computer with the intention of using the personal computer. In connection with the adoption of ICT in the learning economy, positive feelings will encourage the use of ICT in the learning economy.

As disclosed above Rogers (2003: 287) proposes some common characteristics set innovators including the socio-economic characteristics or also referred to as the demographic variables. Tapscott (2009: 16), describes four innings generation explain the general phenomenon that certain age groups with regard to the habit of using information technology as disclosed previously, namely (a) the Boomers, the generation born in the range in January 1946 - December 1964, this generation enjoy early development of television and radio, (b) generation X or Baby Bust generation, born in the range of January 1965 - December 1976, this generation is referred to as a communicator aggressive control of various types of media, (c) generation Net (the Net generation), generation born in the range in January 1977 - December 1997, a generation that is "bathed" digital technology, and (d) generation Z (generation Next), the generation of "digital natives" who were born and grew up in the digital age that

feels comfortable and dependent on ICT. If it is associated with the adoption of ICT in the learning economy, the teachers of younger were more likely to adopt ICT in learning than the older ones.

Gender is one of the demographic variables common characteristics of innovators (Rogers (2003: 287). Research on gender differences show that men tend to be higher to task orientation so that performance expectations are focused on the completion of the task is likely to be stronger in men (Minton and Schneider, 1980 Jogiyanto, 2007: 329). Furthermore, several studies have found that the masculinization technology directly related to attitudes toward computer use (Dong, 2011: 385). Thus, in the context of the adoption of ICT in the learning economy, a male teacher allegedly more use of ICT in learning compared to female teachers.

The purpose of this study was to describe the extent to which there has been a learning adoption of ICT in the economy and to determine the influence of variables characteristic of innovation, environment variables, variables feelings towards the use and demographic variables to the adoption of ICT in the learning economy.

METHOD

Taking into account the research problem then been mixed methods with sequential explanatory strategy (Creswell, 2010: 313-314). This strategy has a groove departs from the approach followed by the quantitative and qualitative approaches. This strategy is implemented with the collection and analysis of quantitative data in the first phase followed by the collection and analysis of qualitative data in the second phase that builds on the initial results of the quantitative. The process of mixing (mixing) of data in this strategy occurred when the initial results of quantitative inform qualitative data collection process with weight / priority being given to the quantitative data.

Determination of the number of samples using a formula developed by Krejcie and Morgan (1970). By inserting N of 349 on the formula of the obtained sample size required is 171 teachers will be distributed proportionally to counties and cities in Yogyakarta.

Quantitative data collection instrument was a questionnaire. The questionnaire used is a questionnaire that has been developed by previous researchers. The questionnaire through the process of translation by an expert, the process of adaptation, and testing processes. The trials conducted on 33 people instrument economics teacher in Sleman and declared valid and reliable after some refinement.

Qualitative data consists of transcripts of interviews with five teachers economy, one of which doubles as the school principal, five supervisors economic subjects from the department of education, five students, four vice-principal areas of curriculum, one widyaiswara economy of Insurance Agency quality of Education (LPMP) and one person lecturers from the Institute for Communication Technology Education (BTKP).

Quantitative data were analyzed using multiple regression statistical assessment method ordinary least square (OLS) and processed by the application program IBM SPSS version 19 statistical methods of data entry with enter method, which means the data is processed simultaneously at a time. Models of regression can be seen in Equation 2. To predictions generated can be closer to the actual conditions, the model estimation performed classical assumption. Classic assumption test conducted are three kinds, namely test: 1) multikolinieritas, 2) heteroskedastisitas, and 3) normality.

AD = a + ß1 SR + SS2 KR + SS3 SS + SS4 CT + ss5 KH + SS6 VS + SS7 KU + SS8 KD + SS8 PS + SS9 KM + SS10 PP + SS11 SSK + SS12 UM + ß13 JK + ß14 PG + ß15 PL + e ..... (2)

The expected value of the coefficient ß1, SS12 <0 and SS2, SS3, SS4, ss5, SS6, SS7, SS8, SS8, SS9, SS10, SS11, ß13, ß14, ß15> 0.

Information :

AD = level of ICT adoption

SR = Perception economics teacher on voluntary (voluntariness) on ICT

KR = Perception economics teacher on the relative merits (relative adventages) on ICT
KS = Perception economics teacher on conformity (compability) on ICT
CT = image (image) of using ICT
KH = Perception economics teacher on the visibility of results (result demonstrability) on ICT
VS = Perception economics teacher on visibility (visibility) of ICT
KU = Perception economics teacher on the possibility of testing (trialibility) on ICT
KD = Perception economics teacher on ease of use (ease of use) of ICT
PS = Perception economics teacher on social influence (social influence) of ICT
KM = Perception economics teacher on condition that facilitates (facilitating conditions) of ICT
PP = Feelings economics teachers to use (Affect toward use) ICT
DS = Dummy school status; (1) state schools, (0) private schools.
UM = Age economics teacher
DJK = Dummy gender; (1) male, (0) women.
PG = Experience economics teacher
PL = Length Following Training
e = error

The results of the analysis of qualitative data is designed to be able to explain the results of the analysis of quantitative data. Stages of qualitative data analysis include data reduction, data presentation, and conclusion. Data reduction is defined as the process of selecting, focusing, simplification, abstraction, and data transformation emerging field of written records in the field (Miles & Huberman, 1992: 16). So the data obtained by researchers of the field is then reduced, summarized, and then sorted out the subject matters, have focused on the most important and then look for a theme or pattern (through editing, coding and pentabelan). Presentation of data is a process of organizing data into a specific shape that looks obscure labih intact. Data sorted out and set aside to be sorted according to the group and is prepared similar category to be displayed in order to align with the problems faced, including the tentative conclusion that obtained at the time the data is reduced. Sendangkan inference is the process of formulating the meaning of the data collected under the theme patterns and relationships. These three aspects of data reduction, data presentation, and conclusion / verification, called interactive analysis for between one another are related and connected interact moments before, during and after data collection in the form of parallel (Miles & Huberman, 1992: 73).

RESULTS

The coefficient of determination (R2) of 0.663, meaning that variations in the adoption of information and communication technology for learning economy can be explained by variations in the variables explanatory consisting of volunteerism, relative advantage, compliance, image, visibility of results, visibility, the possibility of testing, perceived ease , social influence, facilitating conditions, sensation to use, school status, age, gender, experience, and training of 66.3%, while the remaining 33.7% is explained by other factors. F test results showed that the value of $\rho = 0.000$ means that the model can be used to predict the adoption of ICT in the learning economy. The regression equation as in Equation 3 as follows.

AD = 0515-0172 SR KR ** ** + 0199 - 0038 CT KS + 0016 + 0189 + 0025 KH * KU VS + 0.042 - 0.125 KD PS ** ** + 0225 + 0173 + 0262 KM ** PP ** - DS 0058 - UM 0.029 + 0.074 + 0.008 JK PG - 0,002 PL + e …….... (1)

Information:
**) Significant at p <0.01
*) Significant at p <0.05

From interviews with respondents, ICT are widely used in high school to study economics is a computer with an application program Power Point and Microsoft Word. The use of Power Point, is widely used by almost all teachers. As one teacher "... the more often I use is Microsoft Power Point

and Microsoft Word ...". In addition there are other programs that are also used by teachers but with the frequency of the use of fewer, namely (a) the application program for browsing, weblog, and email, (b) a spreadsheet application program, especially Microsoft Excel, (c) application program Adobe Reader, and (d) multimedia application program.

Hypothesis testing shows that voluntarism negatively affect the adoption of ICT. This means the use of ICT will be a lot to do if it is not voluntary. Respondents express suggestion or require the use of ICT will encourage the use of ICT in the learning economy, as expressed by a respondent "... required to actually encourage the use of ICT. Due to required on the one hand requires teachers to use on the other hand requires school leaders to supplement the means ". Other respondents who said that to require or recommend that would give the impression that the use of ICT is a profession demands "... ICTs has been the demands of the profession, teachers should be able to force myself to use ICT".

The hypothesis testing showed that the relative superiority positive effect on the adoption of ICT in the learning economy. Respondents revealed Learning is more effective because the material easy to understand more clearly expressed the students as a respondent "... is more effective because the material is more clearly shown ...". In addition, respondents also revealed the advantages of relative such as a more attractive, more efficient, and more focused as expressed by the respondents as follows: "... the advantages of ICT that is attractive, learning so timely because it narrows the opportunity to turn direction, children calmer because the focus ... ". ICT teachers felt could do with more contextual learning such respondents expressed as follows: "... the ICT can be taught on contextual due to ICT we can look at a real world example, the share price can we find on the internet. With the internet we will get actual data, real ... ".

The hypothesis testing showed that the visibility of the variable results of a positive influence on the adoption of ICT in the learning economy. The opportunity to communicate the results of using ICT occurring in various occasions. Respondents revealed that forums such teachers Deliberation Subject Teacher (MGMP) or Deliberation Learning Development (MPP) is a good forum for mutual communicating the results of using ICT as expressed by the respondents as follows: "... the communication regarding the benefits of the use of ICT occurs especially when MGMP ... ". The interesting thing from among teachers is their willingness to share as expressed by the respondents as follows: "... among the teachers there is no atmosphere to conceal the learning device or media, they even each copy, share, mutual anyway, complementary, especially when there are new pictures or no interesting material ... ".

Hypothesis testing results show that the ease of use of a variable positive effect on the adoption of ICT in the learning economy. According to the teachers there ICT classed difficult and there ICT classed easy as disclosed respondents following "... ICTs easy so far only Power Point, Word, and Excel ..." while those considered difficult to express as follows: "... programs as difficult as making Video Streaming, Streaming Radio, Micro Media Flash and blog ... ". Ease of use fosters confidence to use as expressed by the respondents as follows: "... find it easier and will eventually encourage the use of ICT ...". The phrase respondents interesting is that ease of use will create a need to explore teachers use ICT as expressed by the respondents as follows: "... the taste is encouraged to explore and challenge to use TIKlebih further".

Hypothesis testing results show that social influence variables affect the adoption of ICT in the learning economy. Respondents revealed that the effect of using ICT comes from various parties that include students, colleagues, principals, department of education, and family. The parties encourage teachers to use ICT as expressed by the respondents as follows: "... a good social influence of peers, of leadership, of the students, as well as from the other it encourages the use of ICT in learning ...".

Hypothesis testing results show that the variable conditions that facilitate positive influence on the adoption of ICT in the learning economy. Availability of facilities in schools is now seen as support teachers in making learning even though the facilities provided is deemed still minimal as expressed by the respondents as follows: "Although ICT facilities are still limited, but its presence encourages the use of ICTs". Facility as an environment will shape one's personality through the process of habituation as expressed by the respondents as follows: "... I think the availability of facilities to encourage

teachers to use ICT, the facility seems to me as the physical environment. The physical environment that I think will shape one's personality ... if schools provided a wide range of ICT facilities, the teachers will adjust to get used to using ICT in learning ... ".

Hypothesis testing results show that the variable feelings towards the use of positive influence on the adoption of ICT in the learning economy. Feeling happy and satisfied encourage teachers to use ICT in teaching as expressed by the respondents as follows: "... I think peresaan happy to encourage the use of ICT in the learning economy ...". Pleasure use ICT also foster a sense of mutual help when facing difficulties as expressed by the respondents as follows: "... the feeling we love using ICT ... if there is a problem we usually help each other ...". Feeling happy also foster a desire to explore to discover the benefits of ICT as expressed by the respondents as follows: "... the pleasure that fosters a desire to explore discover the benefits ...".

DISCUSSION

The use of ICT in learning in high school economics teachers often done by economics. ICT into learning media and learning resources at the same time. Frequent use of ICT for learning is not in line with the diversity of ICT use. The use of ICT for learning economy is dominated by the use of Power Point slides. Power Point is used extensively by most economics teacher. As a comparison, the study conducted by Kotrlik and Redman (2009: 44-59) in Louisiana, United States most teachers already have a school email account, computer with internet connection at the school, a computer with internet connection at home, the video cassette recording (VCR), compact disc (CD) and DVD (digital video disc) recorders. These tools are available for teachers and students in sufficient numbers, but this technology has not been used to the maximum. It has similarities with the economics teacher in Yogyakarta, which tend to rely on the application program Power Point.

Voluntariness of ICT significantly negative effect on the adoption of ICT in the learning economy. The use of ICT in teaching economics at school tended to be "highly recommended" approaching a liability. This situation on the one hand to encourage teachers to use ICT on the other hand demanded that the head of the school to provide adequate facilities. This atmosphere also gives the impression that the teachers use ICT is the demands of time, ICT is the main media, use of ICT is a profession demands. The things that cause volunteerism is negatively related to the adoption of ICT in economic pemebelajaran. The influence of volunteerism towards the adoption of ICT is in line with research on the use of ICT among trainers in Cambodia (Richardson, 2009: 165) that volunteerism affect the use of ICT among trainers. In a somewhat different context of this study are also consistent research Slyke et al. (2010: 406) concerning the intention to follow distance learning, in the research of volunteerism also affect the intention memgikuti distance learning, because it is associated with stress. This study is also consistent with research Agarwal and Prasad (1997: 571) that volunteerism is also a significant effect on the use of ICT among professionals who are following the MBA program. Directions effect of volunteering on the use of ICT is also negative or opposite each other.

Relative advantage of ICT significantly positive effect on the adoption of ICT in learning relative ekonomi.Keunggulan affect the adoption of ICT in economic learning because teachers can experience the advantages of ICT, namely: (1) creating effective learning, (2) create efficiencies time preformance learning, (3) more interesting students in learning, (4) learning more contextual, (5) students more independent learning, (6) teaching material more easily editable, and (7) the teaching materials are physically more manageable. The existence of a significant effect on the relative advantages of the adoption of ICT in line with research conducted by Richardson (2009: 165) in the context of the adoption of ICT among trainers in Cambodia. Research conducted by Ilie et al. (2009: 1105) is done in a specific context, namely the adoption of ICT-based groupware applications in lectures at universities also showed that the relative superiority of a significant influence on the adoption of ICT-based groupware applications in lectures at universities. Research conducted by Agarwal and Prasad (1997: 575-576) distinguishes the use of current information technology and the use of technology in the future, the research results show that the relative superiority effect on the use of technology in the future or long term. This is in line with the context of the adoption of ICT in learning by teachers of

economics because the context of this study do not limit the time it automatically becomes a long-term use.

Result demonstrability of ICT significantly positive effect on the adoption of ICT in the learning economy. The results of the use of ICT in the learning economy can be identified and communicated individually at school or in the forums regularly held such MGMPs, MPP, and other meetings. This makes the visibility of results of significantly influencing the adoption of ICT in the learning economy. The results are consistent with research conducted by Richardson (2009: 165) in the context of the use of information technology in the widyaiawara and also in line with research Ilie (2009: 1105) in the context of the adoption of groupware applications in lectures at universities. The results of this study is slightly different when compared to the research conducted by Agarwal and Prasad (1997: 571) who found that the visibility of the results did not affect the adoption of information technology (current use) among professionals who follow the MBA program but the effect on future use intention.

Ease of use of ICT significantly positive effect on the adoption of ICT in learning ekonomi.Kemudahan use affect the use of ICT in the learning economy because: (1) ease of use motivation, (2) ease of use foster self-confidence, (3) ease of use fosters the desire to explore, and (4) ease of use make the teacher feel lucky because with relatively little effort can get the desired result. The results are consistent with the results of research conducted by Richardson 2009 (160-167) in the context of the use of ICT among trainers. In that study variables affect the ease of use of ICT adoption. The results of this study are also consistent with the results of research conducted by Slyke et al. (2010: 395-414) which revealed that the ease of use affects the intention to follow the distance learning. The results of this study are also consistent with the results of research conducted by Ilie et al (2009: 1105), but with variable names opposite of ease of use is the name of complexity. The results showed that the complexity significantly affect the use of groupware applications program with the direction of the negative impact in the context of lectures at universities.

Social influence is significantly positive effect on the adoption of ICT in the learning economy. Important people or people who are considered influential on teachers encourage the use of ICT through their respective roles. People of influence are students, colleagues, principals, department of education, and family. Research conducted by Venkatesh et al (2003: 425-478) distinguishes the context of research into two, namely background background voluntary use of information technology (voluntary settings) and mandated the use of technology (mandatory settings) in that study concluded that social influences affect the use of technology when the information when mandated but not significant when it is at the background of the use of information technology voluntarily. In the context of the adoption of ICT in learning research this economy, the use of ICT in the classroom tend to be mandated for use of ICT has been included in the legislation and into programs in the implementation of teaching in schools from the center to the school. So this study are consistent with research conducted Venkatesh et al (2003).

Facilitating conditions is significantly positive effect on the adoption of ICT in the learning economy. Conditions that facilitate the use of ICT in the learning economy is quite diverse from one school to another school. Existing facilities will form a personality through a process of habituation. On the other hand the availability of the facility will encourage school leaders to create policies that encourage the use of existing facilities. This makes the conditions that facilitate significantly affect the adoption of ICT in the learning economy. Research conducted by Venkatesh et al (2003: 425-478) to produce research findings are somewhat different, in this study the variable conditions that facilitate significant effect on the use of information technology only if moderated by age and experience. Results of research conducted by Thompson et al. (1991: 124-143) found different things. In that study concluded that the conditions that facilitate not affect the use of personal computers. Differences in the findings of this study may be due to differences in the characteristics of different respondents. Research conducted by Thompson et al. using respondents educated employees in multinational companies. On a scale of multinationals, educated employees are likely to face a more standardized facilities are of course different than the economics teachers who are in schools that have high variability in terms of ICT facilities owned.

Affect toward use significantly positive effect on the adoption of ICT in the learning economy. Variable feelings toward the use of which consists of a sense of fun and flavor attracted a significant influence on the adoption of ICT in the learning economy. Pleasure to use ICT will encourage repetitive actions and to try harder to keep using ICT. Pleasure also cultivate a sense of mutual help and the desire to explore the use of ICT for learning. Research studies conducted by Thompson et al. (1991: 124-143) found different things. In that study concluded that the feeling against the use does not affect the use of personal computers. Differences in the findings of this study may be due to differences in the characteristics of different respondents. Until now, the economics teacher could still do without the use of ICT learning, but in the context of the industry such as in the setting Thompson et al (1991) the situation could be very different. In the industrial world in the event of system changes those changes are likely to occur massively and are likely unavoidable due to the interdependence between the parts, so happy not happy employees still need to wear them.

CONCLUSION

This research resulted in several conclusions as follows:

1. Most teachers often use ICT in the economic learning. The application program that is widely used is Microsoft Office application programs especially Power Point and Microsoft Word. In addition there is a program that is used but the frequency is low, namely (a) the application program for the purposes of browsing, weblogs, and email, (b) a spreadsheet application program, especially Microsoft Excel, (c) the application program Adobe Reader, and (d) program multimedia applications.
2. Model adoption of information technology and communications which contain groups of variables characteristic of innovation, the environment variable group, variable feelings towards the use, and demographic variables group works well in explaining the performance of the adoption of information and communication technologies in the learning economy.
3. Variables in variable group karekateristik innovations that significantly influence the adoption of information technology is variable volunteerism, relative advantage, the visibility of results, and ease of use. While the variables are not significant is the compatibility, image, visibility, and the possibility of testing.
4. All variables in the environment variable group consisting of social influence and facilitating conditions that significantly affect the adoption of information technology in the learning economy.
5. Variables feeling of use is a good predictor of the adoption of ICT in the learning economy.
6. The group demographic variables is not a good predictor associated with the adoption of information technology in the learning economy. Five variables, school status, age, gender, experience, and duration of training none of which significantly influence the adoption of ICT in the learning economy.

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