

CT Usage: Self-Assessment of Critical Issues Facing Indonesia and Thai Gen Y Students' Future by 2030

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บทคัดย่อ

คนรุ่นเจนเนอเรชั่น วาย เป็นผู้ที่เกิดในช่วง ค.ศ. 1980 - 2000 การศึกษานี้มีวัตถุประสงค์เพื่อ (1) ศึกษาการใช้เครื่องมือสื่อสารในกลุ่มนักศึกษาเจนเนอเรชั่น วาย ทั้งชายและหญิงในประเทศอินโดนีเซียและไทย (2) อิทธิพลของการใช้โทรศัพท์เคลื่อนที่ต่อการประเมินภาวะวิกฤติทำการรวบรวมข้อมูลโดยใช้แบบสอบถามกับกลุ่มตัวอย่าง 316 คนเป็นนักศึกษาในสถาบันการพัฒนาชุมชนในเมืองยอกยาคารตา ประเทศอินโดนีเซีย 128 คน และนักศึกษาในมหาวิทยาลัยแม่โจ้ จังหวัดเชียงใหม่ ประเทศไทย จำนวน 188 คน ผลการศึกษาพบว่า การใช้เครื่องมือสื่อสารประเทศ และเพศ มีผลต่อการประเมินสถานการณ์วิกฤติที่จะเผชิญในปี 2030

คำสำคัญ: ซีที, เจนเนอเรชั่น วาย, การประเมินตนเอง

Abstract

Gen Y students, known as the Millenials Generation, were born between 1980 and 2000. Objectives of this study are: (1) to investigate the CT usage among Indonesian and Thai male and female Gen Y students (2) influences of cellular phone usage on self-assessment of critical issues. A survey using questionnaires was conducted at the Institute of Community Development "APMD", Yogyakarta Indonesia and Maejo University, Chang Mai, Thailand. Samples are 316 Respondents composed of 128 Indonesian and 188 Thai students. The results show that CT usage, country, and gender among Indonesian and Thai Gen Y students impact on their self-assessment toward critical issues they will face in the future by 2030.

Keywords: CT, Generation Y, Self-assessment

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Introduction

Generation Y is a generation of people born between 1980 and 2000 that grew up as a part of the emergence of Communication Technology (CT) (Singhachotsukpat et.al, 2013: 222). They are also known as the Millennials Generation (Salt, 2006). In this study, Generation Y is mentioned as Gen Y. Gen Y use CT devices in almost all of their daily activities such as in making friends, maintaining communication, and knowledge management (Meier et.al, 2010). Many research had been done on CTs usage related to Gen Y (Karubi and Ching, 2015; Valentine and Powers, 2013; Attuquayefio & Addo, 2016; Mahmood and Bokhari, 2012; Zabadi and Al-Alawi, 2016; Harrison, et.al, 2010; Puspita and Ischii, 2016; Attuquayefio & Addo's study, 2016). However, there were mixed differences in the use of ICT among younger and older people. Later, Karubi and Ching's study (2015) on gender and ICT usage found that Malaysian "Orang Asli" openly adopt the ICTs in order to move forward. Similar to the Valentine and Powers' study (2013) on Gen Y and attitude toward ICT in which GenY has positive attitude toward ICTs than older generation. Other study shows that people's behavior towards the use of ICTs, particularly to the internet varies depended on their expectations and countries (Vyncke & Bergman, 2010). Finally, students' attitudes toward e-learning outcomes were found vary among gender, ICTs usage, and skills (Zabadi & Al-Alawi, 2016).

The main character of Gen Y students is that they learn more from the outside world than in the classroom. They have their own capability to seek for information. They are recognized as generation of problem solvers (Gulbahar & Guven, 2008). Kennedy et.al, (2006) argue that students' experiences in embracing ICTs is not generalizable. A survey done by Skene et.al, (2007) on Australian students show that Gen Y is a diverse group and not all of the students are familiar with CTs. Many students know nothing about CTs. Some others use CTs only when they need something. Therefore, Gen Y students' competence and critical thinking to assess and use CTs still require further study (Moore, Moore & Fowler 2005).

CTs had penetrated almost every aspect of everyday life such as at work, business, teaching, learning, recreation and health. The use of CT does not only improve the learning environment but also prepares the future of the next generation (Wheeler, 2001). Thus, preparing students for real life in the technology world is critical (Braun & Kraft, 1995). Since, very few studies investigate the CTs usage altogether and examine them toward student's self-assessment issues then this study aims to fulfill this lack. The research questions of this study are as follows.

How do Indonesian and Thai Gen Y students mostly do with their CTs devices in daily live and how it impacts on self-assessment on the critical issues related to their future? Are there any differences or similarities in student's self-assessment on the critical issues based on their country origin, gender, and age?

Literature Review

CTs Usage

The rapid adoption of smartphones, tablets or other mobile devices, and Social Network Sites (SNS) plays important role in the young users lives (Goosen, 2017; Lindemann, 2017). They use CTs for internet, facebook (Klein, 2016), finding information, work, entertainment, and social network (Volkom, Stapley, & Malter, 2013). Nowadays, the CTs usage turn into a next step which Ziemba (2013) called as sustainable information society. People start to use CTs for economic socio-cultural, political, and environmental sustainability (Elliot, 2011). Through CTs, young people can be active learners and develop critical thinking, skills, and creativity (Hubbard, 2013). Yet, CTs provide young people with the skills necessary to become lifelong learners and global citizens of the 21st century (Arzal, 2016).

Country of Origin

According to the Global Information Technology Report 2016 shows that in 2015, Indonesia ranks 79 on the Networked Readiness Index out of 143 countries, whereas Thailand ranks 67 (Baller, et.al, 2016). Indonesian students (80 persen) use the internet for searching data or information, social media (70 percent), music (65 percent) and video (39 percent) sites. Chadchawan (Singhachotsukpat et.al, 2013) stated that Thai Generation Y use CTs for lifestyle and to ease their daily life instead of finding information for gathering knowledge.

Gender

The disparity of online access between men and women is the results of the different types of information being seeked. Women prefer to use internet for recreational information and hobbies, whereas men use it for hobbies, reading, informal classes, downloading music or video, remix files, listening to radio, getting financial information to political news (Pew Internet and American Life Project, 2012). Addressing gender inequality, CTs usage remains critical (Mahmood and Bokhari, 2012). Social media can actually be used for women empowerment (Primo, 2013). Women are able to communicate to one another, express affection or concern, and being critical of their circumstances (Antonio and Tuffley, 2014). CTs can help to empower women.

Age

Howe and Strauss (2009) in their Generational Theory stated that people who were born in the same period of time belongs to a specific cohort or generation. People belong to a certain age cohort are more likely to have the same experiences, attitudes, values, and lifestyle (Hoyer and MacInnis, 2010; McCrindle Research Pty Ltd, 2011). Gen Y is an age cohort of people born between 1985 and 2000. Some of them are now college students. They have confidence on their competence, intelligence, and attractiveness. As they are too confidences some people call them as narcissists (Twenge, et.al, 2008).

Self-Assessment

Student self-assessment is "a process in which students collect information and reflect on their own understanding. The student's assessment of personal progress in knowledge, skills, processes, or attitudes, self-assessment makes the student more aware and self-understanding as a learner" (Ministry of Education, 2002: 3). Sedikides (1993) shows that self-assessment does exist and is one of the self-evaluation motives. It is important to self-evaluate as it means that people are able to realize ways in which to improve themselves. Referring to all statements above, this research is conducted to find out how students collect information and reflect on their own understanding and judgment to make them aware on problems they will be facing in the future.

Research Objectives

This study attempts to examine (1) the CTs usage among Indonesian and Thai male and female Gen Y students (2) influences of cellular phone usage on self-assessment of critical issues by controlling country of origin, gender, and age. Tthis study is aimed to provide a detailed picture of CTs usage among male and female Indonesian and Thai Gen Y students and their self-assessment on critical issues.

Research Methodology

Sample and Data Collection

Data for this study was collected through a survey among the students of Government Studies Program at the Institute of Community Development "APMD" Yogyakarta, Indonesia that was chosen from 5 parallel classes of Introduction Sociology course, in which 128 students were randomly drew lots from the total number of 175 students. The population of Thai students was selected from 568 students enrolled in 5 sections of General education Courses of GE 302 Thai Society

and Culture in the first semester of 2014. One every 3 from the name list of the students were chosen yielding 128 Thai students resulting in the total number of 316 students.

A self-administered questionnaire was used in this study. The questions were asked to the students on the use of CT devices, country origin, gender, and age. The students were also asked about the use of cellular phone, notebook or laptop, PC, Ipad, and tablet in their daily live. Seven categories for cellular phone usage answers are: 1) making phone calls, 2) short message, 3) browsing, 4) taking picture, 5) music, 6) games, and 7) other. Six other categories for notebook and PC answers are: 1) office or writing, 2) browsing, 3) games, 4) music, 5) video, and 6) other. Nine categories answers of Ipad and Tablet usage answers are: 1) office or writing, 2) browsing, 3) games, 4) music, 5) video, 6) phone calls, 7) taking picture, 8) short messages, and 9) other.

The dependent variables (Y) were about 20 critical issues purposed by Sustainable Development Goals. Sustainable Development Goals are the target of better and sustainable future that every society needs to be acquired. To pursue those goals, there are 20 critical issues, poverty, democracy, human right, natural resources, security, environment, health, economy, politics, conflicts, employment, population, technology and innovation, information, family, crime, social aspects, justice energy, and inequality, have to be realized and confronted. The utilization of CT is believed to have positive impacts on social inclusion, economy growth, environment conservation that can accelerate SDGs achievement (Martin, 2017). Since Gen Y students are well-known as "digital native", they need to know those issues to anticipate the situations and prepare for the best for their future lives. Gen Y knowledge and concern on SDGs issues are essential for examination. Students were asked to do self-assessment on each of those terms by providing answers with score ranging from 1 to 10. A score of 1 (one) means "no serious problem at all" to a score of 10 (ten) means "there is a very serious problem". All nominal variables are recorded into dummy variables in whereas 1 (one) as predicted category and 0 as a reference group.

Methods

This study uses descriptive statistics to examine the respondent socio-demographics and the CT devices usage. To measure the extent to which country of origin, gender, age and CTs usage predicts students' self-assessment on twenty critical issues. This study used Multiple Linear Regression (MLR). A Multiple

Linear Regression model was conducted to examine the variance of independent variables being regressed toward the dependent variables as in bivariate exercises.

Socio-Demographics

Descriptive statistics on students' country of origin, gender and age show that the percentage of Thai Gen Y students (59.5 percent) is higher than Indonesian Gen Y students (40.5 percent). The percentage of Thai female students (46.8 percent) is higher than Indonesian female students (10.1 percent). On the other hand, the percentage of Indonesian male students (30.4 percent) is higher than Thai male students (12.7 percent). In terms of age, majority of Thai female students (35.8 percent) were aged 19 years old, and 11.7 percent were aged 20 years old. Indonesian male students mostly (16.7 percent) were aged 18 years old and 11.4 percent were aged 19 years old. None of Thai students were at the age of 24-year-olds. However, 0.6 percent of Indonesian students were aged 24 years old. The rest of the students from both countries are between the ages 21 to 23 years old.

Results

The CT devices usage

Data on CT devices ownership show that all of Indonesian and Thai students own cellular phones, 75 percent students own notebooks or laptops, 34.2 percent own PCs, 11.7 percent own Tablets, and only 10.8 percent own Ipad. Majority of Indonesian students use cellular phones for sending short messages (58.6 percent), while Thai students use them for making phone calls. Indonesian students mostly use notebooks or laptops for browsing (28.1percent), but Thai students use them for writing (39.9 percent). Both Indonesian (5.5 percent) and Thai (31.9 percent) students use PCs for office or writing. Generally, Indonesian students use Ipad for browsing, playing games, watching videos, or taking pictures (0.8 percent) and Thai students use them for playing games (5.3 percent).

Looking at the relationship between gender and the CTs devices usage, it shows differences in results. Male students mostly used cellular phones for sending short message (41.9 percent), but female students used them for making phone calls (60.6 percent). Similar differences also occur in the use of notebook or laptop. Male students use notebooks or laptops for browsing (23.5 percent), while female students use them for writing (41.2 percent). For PCs usage, it shows similarity in which male (8.8 percent) and female (30.6 percent) students use them for office or writing. Next, male students mostly use Ipad for browsing or watching video in



which each of them shows 2.9 percent, while female students use them for playing games (3.8 percent). Finally, the findings of Tablets usages are similar to the Ipad. Male students (2.9 percent) use Tablets for watching video and female students (5 percent) use them for playing game.

The influences of cellular phone usage on self-assessment of critical issues

CT usage of cellular phone among Thai and Indonesian students was most common, therefore, to investigate the differences between students' self-assessment on critical issues (dependent variables) and the CTs devices usage controlled by students' country of origin, gender, and age, the cellular phone using would be empasized and futher examined as independent variables. Then, multiple linear regression model (MLRs) were run. Results in table describe the MLR model of cellular phones usage being regressed to self-assessment on twenty critical issues controlled by country of origin, gender, and age. (only critical issues that have significant relationship with the independent variabls were shown in the table)

The findings show that, after controlling for other variables in the model, students who use cellular phones for making phone calls, sending short messages, and taking pictures are significantly more likely to assess justice, employment and population as serious issues in facing the future than students who use them for other purposes. While controlled variables, aspecially students' country of origin (Indonesia is a predictor and Thailand is a reference group) shows that Indonesian students are significantly less likely to assess security, economy, and employment as serious issues in facing the future than Thai students. In addition, female students are significantly more likely to assess politics, employment, population, and social conditions as critical issues in facing the future than male students. However, population and crime issues are ungeneralizable because the F-test shows $p > 0.05$ level.

Table1: Multiple Linear Regression of Cellular Phone Usage on Critical Issues Assessment

No	Issues	B	SE	sig	R ²	F	Sig
1	Justice						
	- CP for calls	-0.596	0.284	0.037*	0.066	2.161	0.020*
2	Security						
	- Country	-0.71	0.211	0.001***	0.119	4.139	0.001***
3	Environment						
	- Country	-0.6	0.221	0.007**	0.072	2.367	0.010**
4	Economy						
	- Country	-0.628	0.209	0.003**	0.089	2.988	0.001***
5	Politics						
	- Gender	0.371	0.159	0.020*	0.076	2.515	0.006**
6	Employment						
	- Country	-0.456	0.211	0.032**	0.089	2.966	0.001***
	- Gender	0.387	0.16	0.016**			
	-CP sms	0.722	0.35	0.040*			
	-CP picture	0.785	0.382	0.041*			
7	Population						
	- Gender	0.364	0.171	0.034*	0.053	1.723	0.075 ^{NS}
	- CP sms	0.74	0.374	0.049*			
	- CP picture	0.863	0.407	0.035*			
8	Crime						
	- Gender	0.33	0.154	0.033*	0.045	1.441	0.161 ^{NS}
9	Social						
	- Gender	0.367	0.156	0.019*	0.087	2.897	0.002**

Note: p<0.001***; p<0.01**; p<0.05*; p>0.05 n.s= not significant; df= 10

Discussion and Conclusion

New communication technologies are not gender blind. The absence of women's voices and perspectives in the information society shows that gender

power relations in the new media replicate in many ways what has happened in conventional media (Plou, 2003). That is also shown in the results of this study. Female Gen Y students have various types of CT devices but they did not use them for equality achievement.

CTs usage varies between male and female Indonesian and Thai Gen Y students on self-assessment of critical issues that they will face by 2030. The overall results of this study supports Zabadi and Al-Alawi (2016), and Utomo et.al, (2013) that students' Gen Y assessment on the CT usage varies depended on gender. But not supporting Attuquayefio and Addo (2016) study that there were no differences among male and female students. Also, Mahmood and Bokhari (2012) that the CT usage will overcome the gender inequality. But for age this study supports the Attuquayefio and Addo's result (2016). The findings that female Gen Y students have more CTs than male students are similar to that of Egbo, Okoyeuzu, Ifeanchio, and Onwumere (2011). This study also suggests that direct intervention is needed in order to achieve gender equality, which is agreed with Puspita and Ischii's findings (2016).

In conclusion, the overall results show that CTs usage varies among Gen Y students' country of origin, Indonesian students use cellular phone and PC for writing and sending short messages, note book for browsing, and Ipad for browsing and playing games, while Thai students use cellular phone for phone calling, note book and PC for office writing, and Ipad for playing games. Different cellular phone usage is found to be the variable that affects the self-assessment of critical issues. There are also significantly different relationships in gender, country of origin, with Gen Y students' assessments on critical issues in facing the future by 2030.

Unlike Thai, Indonesian Gen Y students are more likely to assess poverty as critical issue for them in facing the future, but they are less likely to assess security, environment, economy, employment, natural resources and family as critical issues for them in facing the future. Younger Gen Y students at age of 17 to 18 years old are less likely concerned on the issue of natural resources than older Gen Y students at the age 23 to 24 years old. None of Gen Y students are concerned on democracy, conflict, and government as critical issues for them in facing the future.

Different in cellular phone usage yields different in critical issues view. Cellular phone device may provide channel easily to get access to quick information. Cellular phone, in particular, fits for following and updating the news and information that directly impacts on the user, then students who own cellular phone, are more concern with employment, the issue that so close to them. Difference of country

of origin engenders different social, economic, and politic sphere, therefore, Thai and Indonesian student assesses critical issues differently. Thai students seem to rate variety of critical issues while Indonesian students emphasize only poverty issue. Female also more concerns with politics, employment, population, crime, and social aspect than male counterpart. Moreover, the more the students use cellular phone for making phone calls and texting, the more they rate population, employment, and justice as critical issues.

Recommendations

Recommendation from the study

Assessment results on critical issues indicate that CTs ownerships and usage especially cellular phone seem related to students' future concern. The finding of this study indicates that this views need to be re-considered. There is a need to extend the study towards intensively in disseminating information on gender issues such as SDGs concerns among Gen Y students and the use of CTs device for empowering and encouraging the sustainable development goal.

Recommendation for further study

Further research needs to be conducted in order to confirm the consistency of this study results and to find out how other CT devices influence on future concern and empowering. Moreover, the future research should embrace ICT usage and further look at how the ICT usage can promote the achievement of the sustainable development goal.

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