Factors Affecting the Behavioural Intention to Use Eco-Friendly IT: Case Study of Rajabhat University Member Perspective In Bangkok Metropolitan Area ปัจจัยที่ส่งผลต่อความตั้งใจในการใช้เทคโนโลยีสารสนเทศที่เป็นมิตรกับ สิ่งแวดล้อม: กรณีศึกษามหาวิทยาลัยราชภัฏ ในเขตกรุงเทพมหานครและปริมณฑล

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Abstract

This study investigated factors that predict Rajabhat university members' intentions to use eco-friendly IT habits in their daily life, based on the Theory of Reasoned Action (TRA) and the Perception and Awareness Theory. The survey instrument was developed from previous studies, with questions asking about demographics, media perception, and priority for environmental issues. Finally, a questionnaire was used for collecting data from 209 subjects, selected by using convenience sampling. Subjects include university personnel, professors, executives and students in eight different Rajabhat University campuses in Bangkok Metropolitan Area.

The validity and reliability of the instrument are perfectly acceptable, and the simple linear regression analysis shows that the Environmental Problem Perceived is related to the Environmental Problem Learning, which, in turn, is related to the Environmental Sustainable Awareness. From the result of multiple regressions, the subjects' Attitude toward Eco-Friendly IT, Environmental Sustainable Awareness, Social Influence toward Eco-Friendly IT, and Environmental Problem Perceived are related to Intention to Use Eco-Friendly IT.

Keywords: Behavioural Intention, Eco-Friendly IT, Environmental Sustainability

บทคัดย่อ

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งานวิจัยนี้ศึกษาปัจจัยที่มีผลต่อความตั้งใจในการใช้เทคโนโลยีสารสนเทศที่เป็นมิตรกับสิ่งแวดล้อม ซึ่งมี พื้นฐานการศึกษาจากทฤษฎีการกระทำด้วยเหตุผล ร่วมกับทฤษฎีการรับรู้และการตระหนัก เครื่องมือที่ใช้ใน การวิจัยพัฒนามาจากการทบทวนวรรณกรรม โดยการผสมผสานข้อคำถาม ลักษณะทางประชากรศาสตร์ และ คำถามอื่นๆ เช่น การรับรู้สื่อและการจัดลำดับปัญหาสิ่งแวดล้อม โดยเก็บข้อมูลด้วยการสุ่มตัวอย่างแบบสะดวก

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จำนวน 209 ตัวอย่าง ประกอบด้วยบุคลากร อาจารย์ ผู้บริหาร และนักศึกษาในสังกัดมหาวิทยาลัยราชภัฏใน เขตกรุงเทพมหานครและปริมณฑลจำนวน 8 แห่ง

ผลการทดสอบความเที่ยงและความตรงของข้อคำถามอยู่ในระดับที่ยอมรับได้ ในขณะที่ผลการวิเคราะห์ การถดถอยพบว่า การรับรู้ถึงปัญหาสิ่งแวดล้อมมีความสัมพันธ์กับการเรียนรู้ปัญหาสิ่งแวดล้อม ซึ่งมี ความสัมพันธ์กับการตระหนักถึงความยั่งยืนทางสิ่งแวดล้อม นอกจากนี้ ยังพบว่าทัศนคติ การตระหนักถึงความ ยั่งยืนทางสิ่งแวดล้อม อิทธิพลทางสังคม และการรับรู้ถึงปัญหาสิ่งแวดล้อม มีความสัมพันธ์กับความตั้งใจในการ ใช้เทคโนโลยีสารสนเทศที่เป็นมิตรกับสิ่งแวดล้อม

คำสำคัญ: ความตั้งใจ ความยั่งยืนทางสิ่งแวดล้อม เทคโนโลยีสารสนเทศที่เป็นมิตรกับสิ่งแวดล้อม

Introduction

In recent years, we have seen a great increase in the number of computers and electronic devices for work and personal usage. New technologies have been adopted in every part of society such as government, industry, and services, including education institution, which provides academic services, resource facilities, and also public utilities for academic development (Shah, 2012). According to Qader (2008), university lecturers are considered heavy users of computers and electronic products, either for their personal use, teaching, conducting research, or consulting. Moreover, in Rajabhat university, the computer center is responsible for updating or modifying devices, typically every three years, or as required. The requirements of new technology shorten the IT life cycle from procurement to end of life (Molla & Abareshi, 2012). Although a recycling approach is accepted as a good method for disposal of redundant technology, e-waste accounted for 15-20% of the recycle devices (Khan, Khan, & Ravinath, 2014). At present, firms are beginning to modify their approach to waste disposal, in an attempt to address environmental concerns; some firms have been quick to accept eco-concepts in their organization activities (Qader, 2008). This practice is seen as having helped to build capacity and achieve environment goals within organization (Widjaja, Mariani, & Imam, 2011).

This research aims to study the intentions of university members to use eco-friendly IT habits, such as resource-reducing practices or the use of energy-saving equipment, and to study factors that influence the intention of university members to use environmentally sustainable practices.

Purpose of Research

This research focuses on investigating the following factors; Environmental Problem Perceived and its impacts on Environmental Problems Learning; Environmental Problem Learning and its impacts on Environmental Sustainable Awareness; Environmental Problem Perceived, Social Influence toward Eco-Friendly IT, Attitude toward Eco-Friendly IT, Environmental Sustainable Awareness and their impacts on Intention to Use Eco-Friendly IT.

Expected Results

This study expected to recognize factors that influence the intention to use Eco-Friendly IT. Finding will serve as a guideline in creating awareness and encouraging university members to participate in reducing IT waste.

This may help the organization become more environmentally sustainable and enhance its movement toward being an environmentallyfriendly enterprise.

Related works

This research used the theory of reasoned action (TRA) which described the intention of a person as being influenced by two factors: attitude and subjective norm, as shown in figure 1.

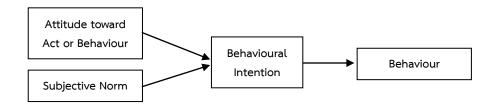


Figure 1 Theory of Reasoned Action (TRA)

Attitude is the strongest factor predicting a person's intention (Paladino & Ng, 2013; Ramayah, Lee, & Mohamad, 2010), while the social influence factor functions similarly to the subjective norm. That is, social influence is a branch of psychology used to predict the behaviour influenced by reference to other people or reference groups. This influence may be in the form of orders or teachings from others, for example, employers, organizations, or family (Lin & Sheu, 2012).

Furthermore, perception and awareness theory has come to several researchers' attention. According to Good and Kappa (1945), awareness is a result of cognitive process. When a person is aroused, a perception is formed. Consequently, the particular arousal is understood. Thus, awareness is formed and leads to learning, understanding, and either positive or negative responses. All of these can be categorized as learning from experience, which leads to intentional behaviours, as shown in figure 2.

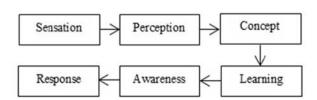


Figure 2 Perception and Awareness Process.

In addition to the aforementioned theory, this study also adopted the concepts of ecofriendly IT and environmental sustainability.

Eco-Friendly IT

Eco-friendly IT is defined as the practice of designing, using, and disposing of IT equipment in an efficient and effective way, without or reducing environment impact (Choon, Sulaiman, &

Mallasi, 2014); for instance, shared printer use, keeping data in storage, cloud computing, printing on both sides or on reused paper, and switching off a monitor when not in use for long (Prakash, 2013); these habits not only reduce expenses, but also reduce the negative impacts of IT on the environment (Shah, 2012).

Environmental Sustainability

Environmental sustainability is a crucial issue both in management and practice of both managers and staffs. Environmental sustainability includes 3 parts; environment, social aspects, and economy, which should be considered together when focusing on reducing energy from IT equipment. Hence, sustainable concept is a balance between the planet, profit, and people (Dao, Langella, & Carbo, 2011).

Literature Reviews

According to the theories and concepts, the factors in this research are as following;

Environmental Problem Perceived refers to a meaningful response to stimuli, decoding, interpretation and event understanding (Ullah, Hasan, & Uddin, 2013). Environmental problem perceived means a person's perception of environmental problems in many aspects, especially IT product disposal (Rideout, 2014; Widmer, Oswald-Krapf, Sinha-Khetriwal, Schnellmann, & Böni, 2005). At present, environmental communication and public relations are being used to generate public perception towards environmental problems (Ali & Ahmad, 2012; Gholami, Sulaiman, Ramayah, & Molla, 2013).

Environmental Problem Learning refers to personal behaviour affected by surroundings. Learning in the new era is based on science and technology, which leads to knowledge and awareness (Bandura, 1971; Kallay, 2012). Environmental problem learning is cognition on the causes and effects of environmental problems, and the environmental and ecological knowledge which leads to awareness and participation (Greville, Cassar, Johansen, & Buehner, 2013).

Environmental Sustainable Awareness

refers to the perception, consciousness, states of understanding, and awareness of the importance of environmental problem-solving. Awareness of environmental sustainability makes individuals realize their ability to promote human wellbeing (Chan, Hon, Chan, & Okumus, 2014; Chou & Chou, 2012).

Social Influence toward Eco-Friendly IT refers to behaviours which affect or influence the behaviour of others (Malhotra & Galletta, 2005). Normally, an individual takes others' opinions as an important issue, and this leads to personal decision-making on eco-friendly IT. So, an individual's thoughts and behaviour may be changed (Ali & Ahmad, 2012; Choon et al., 2014; Ramayah et al., 2010). These motivate each individual to comply with social expectations (Ling, 2013).

Attitude toward Eco-Friendly IT refers to beliefs and feelings to abide by the environmental IT concepts (Aman, Harun, & Hussein, 2012; Hessami, Yousefi, & Goudarzi, 2013). An individual, who has positive attitude towards eco-friendly IT, has high tendency to use and comply with it (Choon et al., 2014; Gholami et al., 2013).

Intention to Use Eco-Friendly IT refers to behaviour expected when the opportunity occurs (Limayem & Hirt, 2003). Behaviour is an intention and purpose to express the purchasing behaviour, environmental IT decision-making and environmental consumption reduction (Ali & Ahmad, 2012; Qader & Zainuddin, 2011).

Conceptual Model and Hypotheses

In addition to the theory of reasoned action, Attitude toward Eco-Friendly IT, Social Influence toward Eco-Friendly IT, and impact on Intention to Use Eco-Friendly IT, this study also addresses the perception and awareness theory, which describes how Environmental Problem Perceived and Environmental Sustainable Awareness affect the Intention to Use Eco-Friendly IT, how Environmental Problem Perceived influences Environmental Problem Learning, and how Environmental Problem Learning leads to Environmental Sustainable Awareness, as shown in figure 3.

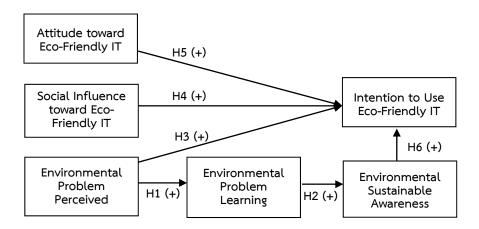


Figure 3 Conceptual Model of Intention to Use Eco-Friendly IT

At present, people perceive environmental problems from many sources (Ali & Ahmad, 2012; Ullah et al., 2013). When individuals perceive the problems, they learn about the causes and effects of environmental problem, and the guidelines to reduce it (Rideout, 2014). Therefore, the hypothesis was posited as follows:

Hypothesis 1: Environmental Problem Perceived has a positive impact on Environmental Problems Learning

When a person realizes that human behaviour can create loss to the environment, which has an effect on human life (Huang, Zhang, & Deng, 2006), this learning is helpful in promoting individual responsibility toward the society. Individuals are aware of participating to reduce environmental impacts, create eco-friendly activities and promote behavioural changes for environmentally sustainable participation (Muindi, Egondi, Kimani-Murage, Rocklov, & Ng, 2014; Priyanto, Fanani, & Sasmitojati, 2013; Uzunboylu,

Cavus, & Ercag, 2009). Therefore, the hypothesis was posited as follows:

Hypothesis 2: Environmental Problem Learning has a positive impact on Environmental Sustainable Awareness

People who are aware of environmental problems will act with responsibility towards society through purchasing environmentally-friendly products (Hartmann & Apaolaza-Ibáñez, 2012). They will conserve the environment or use eco-friendly IT to reduce environmental problems (Ali & Ahmad, 2012; Milos & Cicek, 2014). Therefore, the hypothesis was posited as follows:

Hypothesis 3: Environmental Problem Perceived has a positive impact on Intention to Use Eco-Friendly IT

The society expects an individual to be a part of problem-solving to comply with the social norms, in order to maintain good relationships with other people (Ling, 2013). So, the society

motivates a person to use eco-friendly IT to comply with the societal expectations (Lin & Sheu, 2012). Therefore, the hypothesis was posited as follows:

Hypothesis 4: Social Influence toward Eco-Friendly IT has a positive impact on Intention to Use Eco-Friendly IT

An individual believes that eco-friendly IT can provide benefits to the society by conserving the natural environments (Aman et al., 2012; Hessami et al., 2013). People tend to abide by eco-friendly IT (Choon et al., 2014; Gholami et al., 2013). Therefore, the hypothesis was posited as follows:

Hypothesis 5: Attitude toward Eco-Friendly IT has a positive impact on Intention to Use Eco-Friendly IT

When an individual receives news or knowledge about environmental problems, he/she would like to participate in creating environmental sustainability (Chan et al., 2014; Suresh, 2014). An individual who is aware of environmental sustainability always uses eco-friendly products (Huang et al., 2006; Khan et al., 2014). Therefore, the hypothesis was posited as follows:

Hypothesis 6: Environmental Sustainable Awareness has a positive impact on Intention to Use Eco-Friendly IT

Research Methods

The research instrument was developed from previous studies, including Aman et al., (2012); Chow and Chen, (2009); Gholami et al., (2013); Kartiwi, Hasan, Gunawan, and Husein (2014); Ling (2013); Molla and Abareshi, (2012); Rideout, (2014); and Widmer et al., (2005) in order to extract the current research variables. Then, the questionnaires were tested with the sample groups of 30 subjects, and adapted accordingly.

The questionnaires were separated into three parts of demographic information; media and environmental perception; and factors leading to intention to use IT friendly products.

Basic statistics was used to describe the demographic data, order rank methods to explain the perception sequences, factor analysis, and simple and multiple regressions to explore the variable components and relationships.

Data were collected from the total of 209 personnel, professors, executives and students by using mail and online questionnaires. According to the unknown of the population, the sample was calculated with 5% error and the estimated average according to related research, is 4.13 (Molla, 2009). The result of 185 samples was obtained. However, to reduce discrepancy and increase reliability, this research used 200 samples.

Results

Screening Data and Basic Statistical Testing

Collected data were examined for missing data and outliers, and then tested to see whether it was normally distributed and had a linear relationship with multicollinearity and singularity. Testing of data found no missing data or outlier problem. Data had a normal distribution with a linear relationship. Also, it did not have multicollinearity or singularity problems.

In addition, the research reliability was tested using Cronbach Alpha Coefficient, and the coefficient 0.70 or higher was generated, signifying that the questionnaire was highly reliable. In order to confirm the research components and reduce the number of variables, principle component factor analysis and varimax rotation method was used with the eigenvalue over 1.00, and factor loading

over 0.5. Six components were found in this research (Appendix A).

The demographic description shows that research subjects were female (69.40%) and male (30.60%), aged between 18-25 years (50.70%), 26-33 years (20.60%), 34-41 years (14.40%), 42-50 years (11.50%) and upper 50 years (2.90%). The majority of research subjects were university students (48.30%), followed by

university staff (40.70%), lecturer (9.10%), and administrator (1.90%).

The greatest media influence is TV/radio (72%), followed by social network (68.60%) and website (65.20%). For the environmental problem priority component, the subjects ranked global warming as their first priority problem, followed by climate change, pollution, deforestation, and water shortage.

Table 1 Environmental Problem Ranking Order

| Environment problem | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No Ans. | frequency | No. |
|----------------------------|-------|-------|-------|-------|-------|---------|-----------|------|
| global warming* | 133 | 23 | 19 | 11 | 6 | 17 | 412 | 1* |
| climate change | 20 | 63 | 29 | 29 | 20 | 48 | 737 | 2** |
| soil, water, air pollution | 26 | 42 | 31 | 38 | 31 | 41 | 756 | 3*** |
| deforestation | 10 | 30 | 36 | 31 | 39 | 63 | 875 | 4 |
| water shortage | 12 | 25 | 45 | 31 | 26 | 70 | 871 | 5 |
| storm / flood | 4 | 19 | 35 | 39 | 48 | 64 | 927 | 6 |
| biodiversity loss | 3 | 3 | 10 | 16 | 24 | 153 | 1141 | 7 |
| soil erosion | 0 | 3 | 4 | 14 | 16 | 172 | 1186 | 8 |

global warming* (133x1)+(23x2)+(19x3)+(11x4)+(6x5)+(17x6)=412 climate change** (20x1)+(63x2)+(29x3)+(29x4)+(20x5)+(48x6)=737 soil, water, air pollution*** (26x1)+(42x2)+(31x3)+(38x4)+(31x5)+(41x6)=756

Hypotheses testing

Hypotheses testing were done through simple linear regression and multiple regressions. The analysis was divided into three parts as follows;

Part 1 Simple regression analysis result show that the independent variable (environmental problem perceived) determines the dependent

variable (environment problem learning) at $F_{1,207}$ = 83.338 (p = 0.000). The ability to predict the dependent variable is at 28.70%. When the detail of independent variable were analysed, it was found that perceived is the learning determinant at the beta coefficient of 47.50%, the significant level of p = 0.000, as shown in table 2.

Table 2 Regression of Perceived and Learning

| Relationship | | R ² | Regression | Coefficient | | Hypothesis | |
|---------------|---------------|----------------|------------|-------------|--------|------------|--|
| | | | (Sig) | В | (Sig) | Testing | |
| Environmental | Environmental | | | | | | |
| Problem | Problem | 0.287 | 0.000* | 0.475 | 0.000* | Support | |
| Perceived | Learning | | | | ļ | | |

^{*} p < 0.05

Part 2 Simple regression analysis results shows that the independent variable (environmental problem learning) determines the dependent variable (environmental sustainable awareness) at $F_{1,207} = 93.621$ (p = 0.000). The ability to predict

the dependent variable is at 31.10%. When details of independent variables were analysed, it was found that learning is the awareness determinant at the beta coefficient of 53.50%, and the significant level of p = 0.000, as shown in Table 3.

Table 3 Regression of Learning and Awareness

| Relationship | | R ² | Regression | Coef | ficient | Hypothesis | |
|---------------|---------------|----------------|------------|-------|---------|------------|--|
| | | n | (Sig) | В | (Sig) | Testing | |
| Environmental | Environmental | | | | | | |
| Problem | Sustainable | 0.311 | 0.000* | 0.535 | 0.000* | Support | |
| Learning | Awareness | | | | | | |

^{*} p < 0.05

Part 3 Multiple regression analysis results shows that the independent variables are determinants of the dependent variable (Intention to Use Eco-Friendly IT) at $F_{4,204} = 45.981$ (p = 0.000) which explains the ability to predict the dependent variable at 47.40.

When independent detail is analysed, the environmental problem perceived is the determinant of intention at the beta coefficient of 12%, where the significant level of p = 0.036.

Social influence is the determinant of intention at the beta coefficient of 14.50%, where the significant level of p = 0.006.

Attitude is the determinant of intention at the beta coefficient of 38.60%, where the significant level of p = 0.000.

Awareness is the determinant of intention at the beta coefficient of 16%, where the significant level of p=0.021, as shown in table 4.

Table 4 Regression of Perceived, Social Influence, Attitude, and Awareness

| Relationship | | R ² | Regression | Coef | ficient | Hypothesis | |
|---------------|-----------|----------------|------------|-------|---------|------------|--|
| | | ĸ | (Sig) | В | (Sig) | Testing | |
| Environmental | | | | | | | |
| Problem | | | | 0.120 | 0.036* | Support | |
| Perceived | | | | | | | |
| Social | | | | | | | |
| Influence | Intention | | | 0.145 | 0.006* | Support | |
| toward Eco- | to Use | | | 0.143 | | | |
| Friendly IT | Eco- | 0.474 | 0.000* | | | | |
| Attitude | Friendly | | | | | | |
| toward Eco- | IT | | | 0.386 | 0.000* | Support | |
| Friendly IT | | | | | | | |
| Environmental | | | | | | | |
| Sustainable | | | | 0.160 | 0.021* | Support | |
| Awareness | | | | | | | |

^{*} p < 0.05

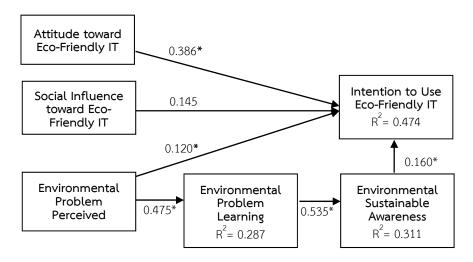


Figure 4 The relationship between research variable.

Summary and Discussion

The research finding several that people in the universities intend to use eco-friendly IT. That is, they will use reused paper when printing in order to reduce resource consumption (mean = 4.33), consider switching to other brands which are eco-products in order to reduce pollution (mean = 4.30), prefer to use products from an environmental conserving organizations (mean = 4.28), and expect to use eco-friendly IT whenever possible, e.g., consider buying products with a green label or a 'number 5' label because there is less pollution (mean = 4.25). The study by Chan et al. (2014) showed that when people learn about environmental problems, they will then go on to take up environmental concerns. As a result, they wish to be a part of creating a sustainable environment, which leads to attentive behavioural pattern expression in environment, energy-efficient products use and natural resource preserving (Khan et al., 2014). Moreover, people who has faith and good senses of environmentally friendly technology concepts will tend to purchase eco-friendly products and use eco-friendly IT to reduce the problems (Ali & Ahmad, 2012; Choon et al., 2014; Chou & Chou, 2012; Gholami et al., 2013; Milos & Cicek, 2014; Ullah et al., 2013).

So, a university could be used as a model to raise awareness about preserving the environment. According to the media perception, administrators may use media such as social network or websites in communicating and providing the knowledge of environmental problems to the university people. This can be related to a study by Muindi et al. (2014), showing that when an individual becomes aware of negative or incorrect IT garbage disposal (Widmer et al., 2005), they will know how the problem occur, and tend to participate in reducing environmental problems (Greville et al., 2013; Muindi et al., 2014; Priyanto et al., 2013). This may build perception among and give knowledge to university members.

Moreover, people in the university can be a role model for each other in environmental preservation due to the social influence factor. This can be related to Ramayah et al. (2010) who showed that society is a factor that affects personal expressions, as it influences the expected behaviour of people in a society (Ali & Ahmad, 2012; Choon et al., 2014; Lin & Sheu, 2012).

Hence, people who perceive others as ecofriendly IT using tend to practice more ecofriendly behaviour (Chow & Chen, 2009). In order to build good perception and good attitude to be eco-friendly university, people should be made aware of environmental issues and encouraged to participate in outdoor activities, join environmental conservation organizations or causes, undertake conservation, engage in recycling, or get involved in other stewardship activities (Torgler, Garcia-Valiñas, & Macintyre, 2008).

Limitations

This research studied the respondents in universities, including personnel, professors, executives and students. It was conducted with a particular group of people who can be more easily made aware of factors that affect the willingness to use eco-friendly IT, not yet considering their differences in experience and lifestyle.

Future Research

The future research should extend beyond the Theory of Reasoned Action by incorporating learning and awareness in order to explore their relationship with desirable behaviour. Another proposition is to make a study comparing two groups of people, or study on Youth awareness.

Moreover, attitude was found to exert a significant influence on intention to use eco-friendly IT. So, future research should study the factors which influence positive or negative attitudes. Furthermore, the relationship between factors, attitudes, social influence and perceptions should also be studied.

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Appendix A

| | Item | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted | MEAN | S.D. | Factor Loading |
|-----|--|----------------------------------|--|------|-------|-------------------|
| PP1 | You perceive that e-waste has toxic | 0.665 | 0.815 | 4.28 | 0.792 | 0.783 |
| PP2 | You perceive that improper e-waste disposal, is part of the problem to the environment. | 0.714 | 0.794 | 4.37 | 0.822 | 0.770 |
| PP3 | You perceive the negative impact of IT equipment on the environment. | 0.654 | 0.819 | 4.19 | 0.784 | 0.761 |
| PP4 | You perceived that e-waste has increased rapidly in recent years. | 0.707 | 0.797 | 4.36 | 0.821 | 0.738 |
| | Cronbach's Alpha 0.848 | | | | | |
| PL1 | Environmental problems have already begun today, such as global warming, natural disasters or pollution. | 0.636 | 0.761 | 4.52 | 0.673 | 0.771 |
| PL2 | Some of environmental problems which are occurring in part by human behaviour. | 0.690 | 0.707 | 4.52 | 0.673 | 0.693 |
| PL3 | Environmental problems such as global warming, natural disasters, or pollution will pose a threat to the lives of people in society. | 0.653 | 0.747 | 4.41 | 0.736 | 0.690 |
| | Cronbach's Alpha 0.809 | | | | | |
| SA1 | You have concerned about the environmental problems that arise today. | 0.481 | 0.780 | 4.11 | 0.790 | 0.729 |
| SA2 | You can participate in social responsibility by helping to preserve the environment around you. | 0.638 | 0.730 | 4.19 | 0.735 | 0.694 |
| SA3 | Great environment will create well-being in the lives of both current and future. | 0.555 | 0.756 | 4.35 | 0.771 | 0.692 |
| SA4 | You think that you can help protect the environment for there are not deteriorated over the original. | 0.510 | 0.770 | 4.10 | 0.775 | 0.647 |
| SA5 | You think that efficient environment protect should started by individual. | 0.671 | 0.717 | 4.33 | 0.765 | 0.571 |

| | ltem | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted | MEAN | S.D. | Factor Loading |
|------|---|----------------------------------|--|------|-------|-------------------|
| | Cronbach's Alpha 0.791 | | | | | |
| SI1 | Most people like family, colleagues, and employers use saving energy computer or no.5 products. | 0.657 | 0.807 | 3.96 | 0.879 | 0.806 |
| SI2 | Most people like family, colleagues, and employers expect that people should use saving energy computer or no.5 products. | 0.709 | 0.785 | 4.06 | 0.797 | 0.780 |
| SI3 | Most people like family, colleagues, and employers are agree on the use of saving energy computer or no.5 products. | 0.705 | 0.786 | 4.15 | 0.816 | 0.778 |
| SI4 | Most people like family, colleagues, and employers have pushed the use of saving energy computer or no.5 products. | 0.636 | 0.817 | 4.00 | 0.883 | 0.742 |
| | Cronbach's Alpha 0.841 | | | | | |
| Att1 | Eco-Friendly IT is a good concept. | 0.673 | 0.864 | 4.31 | 0.780 | 0.795 |
| Att2 | You like the Eco-Friendly IT concept. | 0.803 | 0.815 | 4.33 | 0.760 | 0.736 |
| Att3 | You feel satisfied with Eco-Friendly IT. | 0.728 | 0.844 | 4.31 | 0.833 | 0.730 |
| Att4 | You think the implementation of the Eco-Friendly IT is good and useful to society. | 0.736 | 0.840 | 4.28 | 0.804 | 0.682 |
| | Cronbach's Alpha 0.876 | | | | | |
| IU1 | You will use reused paper when printing in order to reduce resource consumption | 0.580 | 0.820 | 4.33 | 0.802 | 0.748 |
| IU2 | You expected to use Eco-Friendly IT whenever possible, for example consider buying products with a green label or a number 5 label because there is less pollution. | 0.714 | 0.757 | 4.25 | 0.783 | 0.747 |
| IU3 | You consider switching to other brands which are eco-products in order to reduce pollution | 0.705 | 0.763 | 4.30 | 0.734 | 0.723 |
| IU4 | You prefer to use products from an environmental conserving organizations | 0.633 | 0.795 | 4.28 | 0.727 | 0.627 |
| | Cronbach's Alpha 0.829 | | | | | |