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Empirical Study of Consumer Digital Piracy Behavior among Indonesian Youths

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Abstract:

The problem of digital piracy is most prevalent in developing countries, such as China and Indonesia Countries that have low average incomes and high unemployment rates are particularly vulnerable to digital piracy. The role of government in improving the field of information technology is still low. This kind of situation has encouraged the increase of the rate of software piracy in the country. The purpose of this paper is effect of Perceived benefits on the attitude toward digital piracy and intention to pirate digital piracy based on models from empirical research. This study uses SEM analysis to assess the effect of Perceived benefits on the attitude towards digital piracy and intention to pirate digital piracy. Result of this study, Perceived benefits influences consumer's attitude toward digital piracy and intention to pirate digital piracy, the attitude toward digital piracy influences intention to pirate digital piracy.

Keywords: *Perceived benefits, attitude towards digital piracy, intention to pirate digital piracy, and structural equation modeling*

1. Introduction

Digital piracy is defined as illegal copying, sharing, buying, using, uploading and/or downloading copyrighted software, audio products, videos, books and images. The problem of digital piracy is most prevalent in developing countries, such as China and Indonesia Countries that have low average incomes and high unemployment rates are particularly vulnerable to digital piracy. (Wang et al., 2005). Reports from the Business Software Alliance show that there are still many people who use pirated software around the world, including Indonesia. The value of software piracy has even reached trillions of rupiah. The reports showed the value of pirated software circulation in Indonesia has reached 1.1 billion US dollars (US) or equivalent to Rp 18 trillion. The circulation rate of this pirated software reached 84 percent of the software in circulation. The value was obtained from research in 2015. That means this value will have reduced or even increased to be larger.

These software piracy problems have been common in our country (Indonesia) and are generally done without even feeling guilty. This thing happens because of the lack of public awareness of the intellectual property and right norms contained in the software used. On the other hand, the price of legal software is still too high and most users in Indonesia cannot afford it. This condition also occurs by the number of data pirated software sold with prices ranging from five to tens of thousands of dollars in computer stores, or even in street vendors. The problem that is quite intriguing is the fact that the use of the pirated software does not only cover the public in general, but also corporate, government, or even law enforcement (Detik, 2016).

These conditions make Indonesian people easily take shortcuts when they deal with the issue of software price. Many people have relied on pirated software. In recent years, researchers have been investigating ways to reduce and stop digital piracy (Morton and Koufteros, 2008; Yoon, 2011). Nowadays, (Arli et al., 2015; Alleyne et al., 2015; Sang et al., 2015) have found positive effects of attitudes toward digital piracy actions that indicate a significant influence of attitudes toward intention. Consumer ethical beliefs and attitudes have been widely researched as key factors affecting software piracy (Cockrill and Goode, 2012; Kwong et al., 2003; Lysonski dan Durvasula, 2008; Phau and Liang, 2012).

The ability of innovation hijackers is more creative with the help of technological capabilities. Many definitions relate to product piracy along with rapid technological developments. In general, the hijacking a product is defined as an attempt to copy/fabricate products, packaging and configurations related to the product, so that it looks like the original one, as well as marketing it for its own benefit (Lynch, 2002).

At this time, buying or using pirated products is a phenomenon of consumer behavior that is common in the world, one of the products that are often in the plow is the software. The growing number of people who need pirated software for their computers, because of the cheap price and the ease of owning these pirated software (Mardalis and Son, 2012).

The motivation to use technology is based on the perception that technology has the benefit specially to improve performance (Venkatesh and Bala 2008). Motivation using technology based on benefits is a form of extrinsic motivation

from individuals. Extrinsic motivation refers to activities where there is a perception that the activities undertaken are perceived by an instrument to obtain certain outcomes such as work performance, pay rise, and promotion (Davis 1989).

The definition of attitude according to Allport in Setiadi (2003) is a mental and neurological relationship with readiness to respond, organized through experience and has a directional and or dynamic influence on behavior. The definition put forward by Allport means that attitude is to study the tendency to respond to an object whether favored or disliked consistently.

The intention of using pirated software is a person's perception of the possibility of carrying out a behavior in using pirated software (Ajzen, 1991). The desire to behave is a function of attitudes toward behavior, subjective social norms, and perceptions of behavior control.

In essence, the public assumes that if you buy the software it belongs to him. Though buying the software it is buying the right license to use. Thus, it should be distinguished between buying a license by purchasing a product that can be directly connoted as a private property.

Aleassa et al. (2011) noted that digital piracy 'causes a more serious problem in developing countries than in developed countries'. Low incomes and lack of law enforcement in developing countries have created high demand for pirated products (Chiang and Assane, 2008; Richardson and Gaisford, 1996). Besides, the consumers in developing countries may not like the Western view that digital piracy is ethically unacceptable (Chan et al., 2013; Holsapple et al., 2008). What is meant by 'piracy' may be various in each country; For example, copying software for personal backup is not illegal in Israel (Holsapple et al., 2008).

Furthermore, the previous research displayed that students represent a major consumer segment for digital piracy, which is common among academics (Gopal and Sanders, 2000; Wang et al., 2005). Higher education institutions have been regarded as 'breeding grounds for software piracy' (Cheng et al., 1997, p. 51). Therefore, the goal of this study is to test the antecedents of consumer attitudes toward digital piracy and the intention to hijack digital products, especially software among youths (i.e. university students) in Indonesia. After Al-Rafee and Cronan (2006) and Cronan and Al-Rafee (2008), the product context of the current study is generally digital products (software, music, video, or other digital materials). One of the unique contributions of this research is also the Indonesian context in which most citizens ignore the legal consequences of digital piracy (The Jakarta Post, 2015). The results of this study will provide some insight to the government and digital industries on how to reduce the prevalence of digital piracy. Therefore, this study is entitled 'Antecedents of Intention to Pirate Digital Piracy'. The research purposes are as follows:

- To know and analyze influence Perceived benefits to the consumer's attitude towards digital piracy and the consumer's intention to pirate digital piracy
- To know and analyze influence perceived benefits and attitude towards digital piracy to consumer's intention to pirate digital piracy.

2. Method

The population in this study is all users of pirated software among university students. The number of members of the population is not clearly known. Therefore, this study used a sample of 100 respondents. The sampling technique used in this research is purposive sampling. The sample criterion used as primary data source in this study is that the respondents are students from three different universities (University of Indonesia, University of Gunadarma and University of Pancasila) and have used pirated software more than twice. To obtain the required data, the researcher made a questionnaire which was then distributed at three different locations.

There are 3 variables that will be investigated in this research, namely Perceived Benefits, Attitudes Toward Digital Piracy, Intention to Pirate Digital Piracy. The first part of questionnaires identifies respondent which includes gender, age, and the number of pirated software that have been used. The second part is using five-point Likert multi-item scales, where (1) indicates 'strongly disagree' and (5) indicates 'strongly agree'.

Figure 1: Conceptual Frame

3. Result and Discussion

3.1. Result

3.1.1. Characteristics of Respondents

The majority of the respondents is men, 85 male respondents (85%) and the minority of the respondents is female (15%). The majority of respondents aged from 20 until 25 years old is 40 people (40%) and the minority of the respondents aged more than 30 years old is 15 people (15%). The majority of the respondents have used pirated software 2-5 times namely 55 people (55%) and the minority of the respondents have used pirated software, more than 7 times namely 15 people (15%).

	Mean	Deviation Standard
intention to pirate digital piracy software	4,32	,899
I intend to hijack software or software in the near future	4,665	,751
I will try to hijack software in the near future	4,295	,937
Total Average	4,427	,73198

Table 1: Descriptive statistics for Intention to Pirate Digital Piracy

Source: Results of Treatment with SPSS

Overall, the variables of the intention to pirate digital piracy of 100 respondents have an average value of 4,427 which means that most agree with the three items of the statement. Out of the three statements, the respondents who are all students will try to hijack software or software in the near future have the highest score. Respondents have felt the benefits of pirated software which then affects the emergence of Attitudes towards software piracy (Attitude towards digital piracy) where they think that piracy software is a wise or smart idea, useful and good and beneficial that in the end the respondents started trying to hijack software or software in the near future. Someone to be able to start trying something new, he should feel the benefits of it and assume it is not something wrong or bad. If one does not feel or does not happen then the person will not try to do something new that in this case is doing software or software piracy.

4. Discussion

The next step after the instrument test and conformity test model is to modify the model into path analysis where Path Analysis is used to measure the influence of independent variables (endogenous) to the dependent variable (exogenous). The path analysis model can be seen in Figure 2 below.

Figure 2: Research Model with Path Analysis

From Figure 2, there are 3 research variables: Perceived Benefits (PB) as independent or endogenous variable, then Attitude toward Digital Piracy (ATU) as intervening or endogenous variable and Intention to pirate digital piracy (IP) as dependent or exogenous variable.

After the model is made of the path analysis as shown in Figure 4.1, then we test each significant. The significance test is to check whether there is a positive value or significant value and a negative or insignificant value. If it has a negative value or a value that is not significant, it will be done (drop) lane direction (line of influence). Viewed from Figure 2, there is no path that is not significant value.

Indicator Variable	Value of P < 0.05	Estimation	Note
PB → ATU	0.000	0.449	Significant
PB → IP	0.000	0.551	Significant
ATU → IP	0.000	0.262	Significant

Table 2: Lane Model Significance Test

Source: Data Processed With Amos 18

From table 2 above it can be seen that the causal relationship used meet all the criteria value of $P < 0.05$ and positive regression coefficient. The significant causal relationships in Table 8 above are: Perceived Benefit (PB) (X) with Attitude Toward Digital Piracy (ATU) (Y1), Perceived Benefit (PB) (X) with Intention to pirate digital piracy (IP), and the latest Attitude Toward Digital Piracy (ATU) (Y1) with Intention to pirate digital piracy (IP) (Y2).

Result of path analysis test, obtained value of significance level (P) variable X to Y1 equal to $0,000 < 0,05$. So H_0 rejected which means variable Perceived Benefit have positive and significant effect to Attitude Toward Digital Piracy. The effect of Perceived Benefit variable to Attitude toward Digital Piracy is 0.449 or 44.9%.

The result of path analysis test, obtained value of significance level (P) variable X to Y2 equal to $0,000 < 0,05$. So H_0 is rejected. This means the variables of Perceived Benefit have positive and significant effect to Intention to pirate digital piracy. The effect of Perceived Benefit variable to intention to pirate digital piracy is 0.551 or 55.1%.

Result of path analysis test, obtained value of significance level (P) variable Y1 to Y2 equal to 0,000 <0,05. So H0 rejected, which means the variable Attitude Toward Digital Piracy have a positive and significant effect on Intention to pirate digital piracy. The magnitude of the influence of Attitude toward Digital Piracy on Intention to pirate digital piracy is 0.262 or 26.2%.

From table 2 it can be seen that the value of influence for each variable. The influence of Perceived Benefit to Attribute Toward Digital Piracy is 44.9% while Perceived Benefit to the intention to pirate digital piracy is 55,1% and Last Attitude Toward Digital Piracy to Intention to pirate digital piracy is 26,2%. So, the biggest impact on Intention to pirate digital piracy is Perceived Benefit.

Endogen Variable	Squared Multiple Correlation	Intercept
Intention to pirate digital piracy	50.1 %	0.809

Table 3: Coefficient of Determination of Final Path Model

Source: data Processed with Amos 18

The equation of the endogenous variable of the final model is shown as below:

- $ATU = 2,208 + 0,449 PB$
- $IP = 0.809 + 0.551 PB + 0.262 ATU$

The endogenous variable intention to pirate digital piracy (Y2) is significantly affected by Perceived Benefit (X) and Attitude Toward Digital Piracy (Y1). The result of the research explains that the influence of variable Perceived Benefit (X), and Attitude Toward Digital Piracy (Y1) simultaneously to the intention to pirate digital piracy (Y2) equal to 50.1% and the rest 49.9% influenced by other factors outside of this study.

5. Conclusions and Suggestion

This research is intended to know and analyze the influence of Perceived Benefit on Intention to pirate digital piracy through Attitude towards digital piracy. Based on the discussion and the tests conducted, it can be concluded. The variable Perceived Benefit have positive and significant effect to Attitude Toward Digital Piracy and Intention to pirate digital piracy because value of significance level equal to 0,000 <0,05. The variable Attitude Toward Digital Piracy have a positive and significant effect on Intention to pirate digital piracy because value of significance level equal to 0,000 <0,05.

Based on the results of the research and research conclusions previously described, herewith the researcher submits the following suggestions: companies and governments need more effort to educate the public about the impact of piracy Software companies need to make an alternative way to set prices that can be reached by low-income individuals in response to avoid piracy of their products Future studies are expected to use age variation and not focus on one age group as in this study using samples at the age of the student. It required adding some other research variables to figure out what factors affect a person's intentions to perform or to use pirated software.

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