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Youth's Intention To Pirate Digital Products: Antecedents And Consequences

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YOUTH'S INTENTION TO PIRATE DIGITAL PRODUCTS: ANTECEDENTS AND CONSEQUENCES

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Abstract

Objective of this work is to explore the antecedents and consequences of the digital piracy, adapting the theory of reasoned action. This paper focuses on Thai youths' piracy behavior since Thailand has a high piracy rate and young consumers are the main piracy group. Qualitative approach with survey questionnaires is applied. Two hundred and twenty three samples are collected. Findings reveal that three important factors to the intention to download or buy illegitimate products are subjective norms, attitudes towards digital piracy, and perceived moral obligation. High perceived moral obligation also lower the subjective norms and attitudes towards the digital piracy. The general intention to commit digital piracy has significant influence on downloading or buying software, movies, and music. Female youths have less intention to pirate than male youths. Implications for copyrighted owners, parents, and teachers are discussed.

Key words: Piracy behavior, youth, the theory of reasoned action, idolatry, morals

1.0 Introduction

Copyright industries nowadays are important to the growth of economies. In 2012, copyright industries contributed 11.25 percent ($1.7 trillion) to the U.S. Gross Domestic Product (GDP). According to the U.S. GDP from 2009 to 2012, the copyright economy added 4.73 percent annual growth rate value to the GDP, which were more than the national economy did (2.14 percent). The copyright industries comprise of computer software, videogames, books, newspapers, periodicals, journals, motion pictures, music, and radio and TV broadcasting (Siwek, 2013). Thefts of digital products destroy the economics of copyright industries. The Institute for Policy Innovation points $12.5 billion annual loss of the U.S. economy and more than 70,000 job losses of the U.S. workers due to internet piracy. In 2009, only 37 percent of music was acquired legally by the U.S. consumers. In 2011, P2P file-sharing systems also decreased 53 percent of music sales in the U.S. from $14.6 billion to $7.0 billion (RIAA 2013b). In addition, the piracy of copyrighted contents consumes large amount of internet bandwidth, 24 percent worldwide and 17.5 percent in the U.S. (RIAA, 2013a). These internet piracy and broadband boom significantly lower the music sales (Peitz and Waelbroeck, 2004). Several studies emphasize the importance of young downloaders on the piracy problem

(So, 2004; Funkhouser, 2006; White et al., 2010; Dilmperi, 2011; Moores and Esichaikul, 2011). NPD Group (2008) also reported an increasing number (46 percent risen up) of P2P file downloading among 13 - 17-year-old youth.

Some research studied about the piracy of copyrighted contents. For example, Moores and Dhaliwal (2004) applied the reversed context analysis to explore reasons underlying software piracy of Singapore students. The result showed that availability, cost, and a lack of censure were drivers of the software piracy. However, Singapore students were less willing to stop buying illegal copies if the cost of copyrighted software was lower, slightly differing from the prior study of Moores and Dhillon in Hong Kong. Limayem et al. (2004) examined factors affecting software piracy based on human behavior theories. Habits and facilitating conditions significantly influenced the piracy behavior. On the contrary, the software piracy intention was not a predictor of the piracy act. Lysonski (2008) investigated the state of music piracy and the impacts of ethical orientation and attitudes towards MP3 downloading on the music piracy. Findings showed that a belief that the music piracy was not morally wrong increased the music piracy. Respondents also believed that their peers were more prone to the music piracy. Ethical orientation was positively related to the awareness of the social cost of piracy, consequences of piracy, and ethical belief of piracy. Fear of consequences had a negative influence on illegal downloading. Malin and Fowers (2009) applied the theory about self-control and opportunity to examine the relevance of high school students' attitudes and the music and movie piracy through internet. The result indicated associations between the attitudes toward internet piracy and self-control, gender, internet experience, connections with pirate friends, and grade level of the students. Plowman and Goode (2009) studied the intention to unauthorized downloads of legitimate music, applying factors from the behavioral, economic and technological literature. Findings indicated the importance of downloaders' attitudes, their ability to download music via online channels, and the price of copyrighted music in copyright pirates. Both price and quality were vital for heavy downloaders, while only price were significant for light downloaders. Phau et al. (2009a) explored the effects of collectivism and personal moral obligation on young freeloaders' attitudes towards the internet piracy of movies and TV series. Two factors were significantly related to the attitudes. The attitudes were a significant driver of intentions to the movie and TV series piracy as well. Liang (2010) examined the influence of personal and social factors on illegally downloading movies from internet. Habits, affect, and

facilitating conditions were found to be antecedents of attitudes towards unauthorized downloading movies, whereas moral judgment, self-efficacy, social factors, internet usage, internet time spent, and internet speed were not supported to be predictors of attitudes towards illegally downloading movies. Moores and Esichaikul (2011) studied the state of buying, sharing, and using illegal software and the effect of age, gender, and work experience on a willingness to do those activities. Findings revealed that different level of buying depended on gender, different level of sharing depended on age and gender and different level of using depended on work experience. Aleassa et al. (2011) developed a software piracy model using the Theory of Reasoned Action (TRA). Attitudes towards software piracy and subjective norms were antecedents of the intention to wrongly acquire software. In addition, ethical ideology, public self-consciousness, and low self-control moderated the effect of these variables on intention to pirate software. Cockrill and Goode (2012) identified four types of piracy behavior consisting of serious pirates, opportunists, receivers, and non- pirates, and drivers of these behavior types. Perceived harm was a vital differentiator of four behavior groups. The result emphasized the need of providing different anti-pirating measures for different behavior types, to increase the effectiveness of the measures. Setterstrom et al. (2012) applied the TRA to conduct the cross-cultural comparison between software piracy in Jordan and the U.S. Findings strongly supported the TRA. Public self-consciousness, ideology, and religiosity variedly moderated the relationships of TRA among two cultures as well.

There are a lack of studies in non-western environments, regardless of how there are some studies concerning the piracy of copyrighted contents (Aleassa et al., 2011). Also, some literature gaps, such as exploring the piracy of different types of legitimate products, could be filled. This research is thus aimed at answering the followed research questions, focusing on young consumers. Thailand is applied to be the target location. It is suitable since Thailand is listed to be one of intellectual property laws' violators in the priority watch list (The Office of the United States Trade Representative, 2013). Thailand also contributes to high levels of digital piracy due to its socio-economic conditions: wealth and culture (Moores and Esichaikul, 2011).

1. Do the TRA constructs affect the intention to pirate digital products?
2. Do perceived legal punishment, perceived high price of digital products, perceived moral obligation contribute to the TRA constructs and the intention to pirate digital products?

3. Are the levels of illegally downloading software, movies, music influenced by the intention to pirate digital products?
4. Is the intention to pirate digital products different among genders?
5. Are software piracy behavior, movie piracy behavior, and music piracy behavior different among the different income groups?

2.0 Hypotheses Development

2.1 Perceived Legal Punishment

Attitude towards pirating music decreases when the deterrence effect of legislation increases (Plowman and Goode, 2009). The perceived risk of being caught is negatively related to attitude towards illegally downloading a digital song (Chiou et al., 2011). Perceived risk significantly affects attitude toward digital piracy (Yoon, 2011b). There are correlations between the knowledge of intellectual property law and attitude towards software piracy (King and Thatcher, 2012). Consumers' attitudes towards digital piracy are lowered by an increase of their perceived risks (Setiawan and Tjiptono, 2013).

Perceived consequences of software piracy positively affect the intention to pirate software (Limayem, 2004). Fear of punishment such as consequences of pirating has an influence on the intention to commit downloading MP3. Consequences of getting caught of committing music piracy also make less intention to illegally download (Lysonski et al., 2008). Deterrence influence of legislation can decrease the intention to download unauthorized music (Plowman, S & Goode, S 2009). High prosecution risk lowers the intention to use illegal software (Liao et al., 2010). Perceived risk of being caught for pirating digital songs negatively affects the intention to pirate (Chiou et al., 2011). Legal concerns negatively impact the intention to download via P2P program (Wang and McClung, 2011). The piracy intention decreases if the perceived personal risk increases (Koklic et al., 2012). Piracy intention can be weaken from perceived harm (Cockrill and Goode, 2012).

The hypotheses, therefore, are:

H1: the attitude towards digital piracy increases as the perceived legal punishment increases.

H8: the intention to pirate digital products increases as the perceived legal punishment increases.

2.2 Perceived High Price of Digital Products

Pirate students in Hong Kong and Singapore give importance to the high cost of authorized software as a justification of software piracy (Moores and Dhaliwal, 2004). High price of legitimate songs drive the intention to download unlawful music files (Plowman and Goode, 2009). A concern for paying low prices of software can increase attitudes towards illegally downloading software (Phau and Ng, 2009).

The hypothesis, therefore, is:

H2: the attitude towards digital piracy increases as the perceived high price of digital products increases.

2.3 Perceived Moral Obligation

Personal moral obligation negatively affects attitudes towards pirating movies and TV series via peer-to-peer systems (Phau et al., 2009a). Ethical ideology can moderate the association between the attitude and intention to download unauthorized software (Aleassa et al., 2011). High moral development of individuals leads to low attitudes towards pirating software. A significant relationship between moral norms and the attitudes is also supported (King and Thatcher, 2012). The belief that digital piracy is morally justifiable is decreased by an increase of moral judgment score (Yu, 2012). Attitudes towards software piracy decreases as the moral intensity increases (Phau and Ng, 2009). Moral judgment on software piracy of computer users is positively related to their attitude towards software piracy (Chan et al., 2013).

Moral obligation has a negative effect on subjective norms (Yoon, 2011b). Subjective norms toward digital piracy are lowered when moral obligation is higher (Setiawan and Tjiptono, 2013).

Ethical judgment affects the intention to pirate software (Liu and Fang, 2003). There is a positive relationship between moral disengagement and the intention to commit software piracy (Garbharran and Thatcher, 2000). Respondents who have low moral equity are likely to evaluate the software piracy as unethical (low judgment). They will also evaluate the intention not to behave in accordance with an unethical act (low intention) (Wagner and Sanders, 2001). Moral judgment of a user can make less intention to use unauthorized software (Funkhouser, 2006). Ethical belief contrarily affects the online piracy intention (Kampmann, 2010). Intention to download CDs can be decreased by guilt feelings (Wolfe et al., 2008). Ethical judgment negatively impacts

the intention to involve digital piracy (Yoon, 2011a). Moral obligation has a negative influence on the intention to commit software piracy (Garbharran and Thatcher, 2011). Ethics lower DVD pirating intentions (Cockrill and Goode, 2012). Moral obligation is negatively related to the consumer's intention to illegally acquire digital products (Setiawan and Tjiptono, 2013). Perceived moral intensity of computer users on software piracy also negatively impacts the intention to pirate software (Chan et al., 2013).

The hypotheses, therefore, are:

H3: the attitude towards digital piracy increases as the perceived moral obligation increases.

H4: the subjective norm increases as the perceived moral obligation increases.

H9: the intention to pirate digital products increases as the perceived moral obligation increases.

2.4 Attitude towards Digital Piracy

Attitudes towards software piracy positively affect the intention to perform the piracy behavior (Lin et al., 1999). High favourable attitude builds more intention to pirate digital media (So, 2004). The intention to commit music piracy through internet is driven by the attitude towards online music piracy (Morton and Koufteros, 2008). Attitudes towards downloading unauthorized music positively impact the intention to do the piracy act (Plowman and Goode, 2009). General attitude of an individual has a positive effect on his/ her general intention to pirate music (Wang et al., 2009). Intention to commit illegal downloading is positively involved with the attitude towards the piracy (Yoon, 2011b). Intention to pirate movies and TV series increases as attitudes towards the piracy behavior increases (Phau et al., 2009a). Attitude towards using unauthorized software positively impacts the intention to used pirated software (Liao et al., 2010). Intention of an individual's to commit software piracy is driven by his/ her attitude towards software piracy (Aleassa et al., 2011). Consumer's intention to involve digital piracy increases when consumer's attitude towards pirating digital products increases (Setiawan and Tjiptono, 2013).

The hypothesis, therefore, is:

H5: the intention to pirate digital products increases as the attitude towards digital piracy increases.

2.5 Subjective Norm

Subjective norms positively affect the intentions to pirate software (Lin et al., 1999). Attitudes towards digital piracy increase as subjective norms increase (So, 2004). Social factors positively affect intentions to pirate software (Limayem et al., 2004). Intention to commit online pirating music is driven by subjective norms (Morton and Koufteros, 2008). Deviant peer association impacts an individual's towards piracy (Malin and Fowers, 2009). Perceived subjective norms are positively related to the general intention of downloaders to pirate music (Wang et al., 2009). Intention to download movies and TV series using P2P networks is positively affected by social factors and social acceptance (Phau et al., 2009b). Subjective norm impacts the intention to do digital piracy (Yoon, 2011a; Yoon, 2011b). Subjective norms positively impact the intention to commit software piracy (Aleassa et al., 2011). Subjective norms have a positive influence on intentions to illegally download via P2P program (Wang and McClung, 2011). Subjective norms are partially supported to be an antecedent of an individual's intention to commit software piracy (Setterstrom et al., 2012). Downloaders are more probably influenced by social factors than non-downloaders (Liang and Phau, 2012). Computer users' perceived peer pressures about software piracy positively affect their piracy intention (Chan et al., 2013).

The hypothesis, therefore, is:

H6: the intention to pirate digital products increases as the subjective norm increases.

2.6 Idolatry

Idolatry has a positive influence on the intention of an individual to buy an authorized music CD of a singer (Wang et al., 2009). A fan's adoration of a singer is proposed to be negatively related to the fan's attitude and intention towards pirating digital songs of that singer (Chiou et al., 2011).

The hypothesis, therefore, is:

H7: the intention to pirate digital products increases as the idolatry increases.

2.7 Intention to Pirate Digital Products

There is a positive relationship from the intention to piracy behavior. In addition, a person with low intention to act unethically has low behavior to behave unethically (Wagner and Sanders, 2001).

The hypotheses, therefore, are:

H10: the level of individual's software piracy increases as the intention to pirate digital products increases.

H11: the level of individual's movie piracy increases as the intention to pirate digital products increases.

H12: the level of individual's music piracy increases as the intention to pirate digital products increases.

2.8 Gender and Income

Females are more likely to share illegal software than males, but they are less likely to buy unauthorized software than males (Moores and Esichaikul, 2011). There is a difference between attitudes of boys and girls towards music and movie piracy. Boys have agreeing attitudes towards the piracy more than girls (Malin and Fowers, 2009). Intentions of females to buy illegal music and to pirate music are both less than males (Wang et al., 2009). Male respondents have more accepting attitudes toward software piracy than female respondents (King and Thatcher, 2012).

The hypothesis, therefore, is:

H13: Among freeloaders of digital products, females' intention to pirate digital products differs from males' intention to pirate digital products.

Income was proposed to be a negative driver of the intention to use illegal software (Funkhouser, 2006). It was also assumed to be a negative predictor of the intention to download CDs (Wolfe et al., 2008). Income negatively impacts illegally downloading music. It also positively affects buying copyrighted music of an individual (Dilmperi, 2011).

The hypothesis, therefore, is:

H14a: Among freeloaders of digital products, the level of individual's software piracy is different in young consumers with different incomes.

H14b: Among freeloaders of digital products, the level of individual's movie piracy is different in young consumers with different incomes.

H14c: Among freeloaders of digital products, the level of individual's music piracy is different in young consumers with different incomes.

3.0 Research Methodology

Participants of this study are male and female youths with the age between 12 – 21 years old. The utilized measures consist of items, which were slightly modified, from literature. Perceived legal punishment, perceived high price of digital products, perceived moral obligation, attitude towards digital piracy, subjective norms, idolatry, and the intention to pirate digital products were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). An example of perceived legal punishment is "If I committed online music piracy, I would probably be caught and fined" (Morton and Koufteros, 2008). The alpha coefficient of three items is .854. An example of perceived high price of digital products is "The price of copyrighted products is too high" (Kartas and Goode, 2012). The alpha coefficient of three items is .807 with the current sample. An example of perceived moral obligation is "I would feel guilty if I pirated digital products" (Yoon, 2011b; Hashim et al., 2009). The alpha coefficient of three items is .795 with the current sample. An example of attitude towards digital piracy is "I think digital piracy is…harmful/beneficial" (Wang et al., 2009). The alpha coefficient of three items is .809 with the current sample. An example of subjective norm is "The people in my life often illegally download or buy digital products" (Wang et al., 2009; Yoon, 2011a). The alpha coefficient of two items is .723 with the current sample. An example of idolatry is "To me, it is important to buy or download digital products of producers, actors, or artists who impress me most" (Wang et al., 2009). The alpha coefficient of three items is .800 with the current sample. An example of intention to pirate digital products is "I may illegally buy or download digital products in the near future" (Yoon, 2011a; Liao et al., 2010). The alpha coefficient of three items is .874 with the current sample. Digital piracy behavior were appraised using a five-point Likert format, ranging from 1 (Never) to 5 (Very Frequently). An example of piracy behavior is "The frequency of illegally buying or downloading and keeping it on your computer after using to it" (Hansen and Walden, 2013). All items were pretested and edited first. Then, online questionnaires were sent to participants through personal contacts and posting on popular web sites such as www.dek-d.com, www.pantip.com, etc. Finally, a total 223 questionnaires were analyzed using factor analysis, reliability assessment, descriptive statistics, T Tests, ANOVA, simple linear regression, and multiple linear regressions.

3.1 Factor Analysis and Reliability Assessment

Instrument items were also evaluated their reliability using Cronbach's alpha. As shown earlier, every construct had alpha more than 0.6, the general cutoff value for internal consistency score. Factor analysis was applied to test the construct validity. The Kaiser-Meyer-Olkin measures of sampling adequacy of the first group (perceived legal punishment, perceived high price of digital products, perceived moral obligation, and idolatry), the second group (attitude towards digital piracy and subjective norms), and the last group (the intention to pirate digital products) were .714, .645, and .743 respectively, above the commonly recommended value of .6. Bartlett's tests of sphericity of all groups were also significant. The communalities were all more than .7, supporting that each item shared some common variance with others. All factors were examined using principal component analysis with varimax rotation of the factor loading matrix as shown in Table 1. Perceived legal punishment, perceived high price of digital products, perceived moral obligation, attitude towards digital piracy, subjective norms, idolatry, and the intention to pirate digital products explained 19.60, 18.28, 17.71, 43.70, 31.49, 18.04, and 79.98 percent of variances respectively. One item of the subjective norm factor was eliminated since it did not contribute to the factor structure. Every item in three groups had high factor loadings, more than .8. Finally, all constructs were ready for subsequent analyses.

Table 1. Factor loadings based on a principal components analysis with varimax rotation

	Perceived Legal Punishment	Perceived High Price of Digital Products	Perceived Moral Obligation	Idolatry
PUNISH2	.901			
PUNISH3	.885			
PUNISH1	.814			
PRICE_REAL2		.870		
PRICE_REAL3		.856		
PRICE_REAL1		.822		
IDOL3			.883	
IDOL2			.869	
IDOL1			.761	
ETHICS2				.832
ETHICS3				.812
ETHICS1				.810
% of Variance	19.596	18.284	18.035	17.741
Cumulative %	19.596	37.881	55.916	73.656

	Perceived Legal Punishment	Perceived High Price of Digital Products	Perceived Moral Obligation	Idolatry

Note. Factor loadings < .5 are suppressed.

4.0 Data Analysis and Results

4.1 Descriptive Statistics

Two hundred and twenty three questionnaires were collected. The respondents' contact information revealed no duplications. The majority of participating youths were females (137 persons, 61.4 percent), with 38.6 percent males (86 persons) of the sample. Age was captured with 1 person (0.5 percent) in the between 12 – 14-year-old group; 5 persons (2.2 percent) in the between 15 – 17-year-old group; and 217 persons (97.3 percent) in the between 18 – 21-year-old group. Twenty eight respondents (12.6 percent) had income less than 3,000 baht per month. Sixty one respondents (27.4 percent) had income 3,001 – 5,000 baht per month. Eighty seven respondents (39.0 percent) had income 5,001 – 10,000 baht per month. Twenty five respondents (11.2 percent) had income 10,001 – 15,000 baht per month. Seven respondents (3.1 percent) had income 15,001 – 20,000 baht per month. Fifteen respondents (6.7 percent) had income more than 21,000 baht per month. Cell phones were reported by 143 respondents (64.1 percent) as their internet access devices; 57 respondents (25.6 percent) reported tablet PCs; 176 respondents (78.9 percent) reported laptops; and the remaining 108 respondents (48.4 percent) reported desktop computers. The majority of respondents (64 respondents, 28.7 percent) used cell phone network (EDGE) as their internet access types; 134 respondents (60.1 percent) used cell phone network (3G); 47 respondents (21.1 percent) used dial-up modem; and 158 respondents (70.9 percent) used ADSL modem. Youths experienced digital piracy on different levels. Of all respondents, only 7 respondents hardly downloaded or bought illegal products (0 times per month). As shown in Table 2, the majority of participants engaged in software piracy 1 – 4 times per month; engaged in music piracy 1 – 4 times per month; and highly engaged in movie piracy 5 – 9 times per month. In sum, young participants generally commit digital piracy (downloading or buying and keeping digital products) 1 – 4 times per month.

Table 2. Piracy Behaviour of Respondents

Digital Product Type	Software	Movie	Music	Total
Frequency of Piracy download or buy and keep	(No. of Respondents)			
0 times per month	33	17	37	87
1-4 times per month	100	50	77	227
5-9 times per month	49	62	54	165
10-14 times per month	32	50	38	120
More than 15 times per month	9	44	17	70
Total	223	223	223	669

4.2 Hypotheses Testing

In order to test hypotheses 1 – 12, multiple linear regressions and simple linear regression were applied to examine the effects of independent factors. In terms of antecedents of the attitude towards digital piracy, only perceived moral obligation was found to be a significant predictor as shown in Table 3. Thus, only H3 was accepted, while H1 and H2 were rejected. The rejection could be supported by the unsupported relationship between the perceived punishment severity/ perceived punishment certainty and the attitude towards online music piracy (Morton and Koufteros, 2008). The factor accounted for 15.8 percent of the variance in the attitude towards digital piracy. Perceived moral obligation also significantly predicted subjective norms as shown in Table 4. Therefore, H4 was supported. The factor accounted for 10.7 percent of the variance in subjective norms. Linear combination between five factors and the intention to pirate digital products were regressed as shown in Table 5. Only three factors, namely attitude towards digital piracy, subjective norms, and perceived moral obligation impacted the intention to pirate digital products. Attitude towards digital piracy and subjective norms positively affected the intention to illegally download or buy digital products, whereas perceived moral obligation negatively affect the piracy intention. Hence, H5, H6, and H9 were accepted, but H7 and H8 were rejected. These factors accounted for 33.3 percent of the variance observed in the digital piracy intention. The rejection of price effect could be explained by the prior study that the positive or negative price was not confirmed to be a significant predictor of consumer behavior (Kampmann, 2010). Overpriced products were also unsupported to be an antecedent of intentions to download via P2P platform (Wang and McClung, 2011). Simple linear regression was applied to explore the influence of piracy intention on illegally downloading or buying different digital products as shown in Table 6. Findings

confirmed the effect of the intention on software piracy, movie piracy, and music piracy. So, H10 – H12 were accepted. Intention to pirate digital products explained 10.4, 10.7, and 13.7 percent of variances in the software piracy, movie piracy, and music piracy.

Table 3. Summary of Multiple Linear Regression Analyses for Variables Affecting Attitude towards Digital Piracy (N = 223)

	Attitude towards Digital Piracy		
Variable	*B*	*SE B*	*β*
Perceived Legal Punishment	.075	.062	.080
Perceived High Price of Digital Products	.121	.074	.102
Perceived Moral Obligation	-.405	.069	-.392**
R^2		.158	
F		13.683**	

*$p < .05$ **$p < .01$

Table 4. Summary of Simple Linear Regression Analyses for Variables Affecting Subjective Norm (N = 223)

	Subjective Norm		
Variable	*B*	*SE B*	*β*
Perceived Moral Obligation	-.349	.068	-.326**
R^2		.107	
F		26.352**	

*$p < .05$ **$p < .01$

Table 5. Summary of Multiple Linear Regression Analyses for Variables Affecting Intention to Pirate Digital Products (N = 223)

	Intention to Pirate Digital Products		
Variable	*B*	*SE B*	*β*
Attitude towards Digital Piracy	.158	.063	.145*
Subjective Norm	.463	.060	.442**
Idolatry	.022	.060	.020
Perceived Legal Punishment	-.039	.058	-.038
Perceived Moral Obligation	-.255	.075	-.228**
R^2		.333	
F		54.926**	

*$p < .05$ **$p < .01$.

Table 6. Summary of Simple Linear Regression Analyses for Variables Affecting Software Piracy Behavior, Movie Piracy Behavior, and Music Piracy Behavior (N = 223)

	Software Piracy Behavior			Movie Piracy Behavior			Music Piracy Behavior		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Intention to Pirate Digital Products	.347	.069	.323	.396	.077	.327	.469	.079	.371
R^2		.104			.107			.137	
F		25.659**			26.443**			35.207**	

*$p < .05$
**$p < .01$

T-test statistic was used to check the gender difference of intentions to download or buy and keep unauthorized digital products. Results indicate a significance of males' intention to pirate digital products (M = 3.75, SD = .99) over females' intention to pirate digital products (M = 3.37, SD = .92), t(221) = 2.934, p = .002, p = .151, α = .01. Therefore, H13 were supported. ANOVA statistic were calculated to identify the relationships between income levels and piracy behavior (software piracy, movie piracy, and music piracy) The 28 participants in the lowest-income group had an average software piracy behavior of 2.61 (SD = 1.166); the 61 participants in the very-low-income group had an average software piracy behavior of 2.49 (SD = 1.074); the 87 participants in the low-income group had an average software piracy behavior of 2.45 (SD = .962); the 25 participants in the moderate-income group had an average software piracy behavior of 2.24 (SD = 1.091); the 7 participants in the high-income

group had an average software piracy behavior of 2.86 (SD = .900); the 15 participants in the very-high-income group had an average software piracy behavior of 2.60 (SD = 1.121); However, the effect of income was not significant, F(5,217) = .587, p=.710. The 28 participants in the lowest-income group had an average movie piracy behavior of 2.89 (SD = 1.343); the 61 participants in the very-low-income group had an average movie piracy behavior of 2.67 (SD = 1.165); the 87 participants in the low-income group had an average movie piracy behavior of 2.60 (SD = 1.072); the 25 participants in the moderate-income group had an average movie piracy behavior of 2.68 (SD = 1.145); the 7 participants in the high-income group had an average movie piracy behavior of 2.43 (SD = 1.134); the 15 participants in the very-high-income group had an average movie piracy behavior of 2.40 (SD = 1.502); However, the effect of income was not significant, F(5,217) = .466, p=.801. The 28 participants in the lowest-income group had an average music piracy behavior of 3.82 (SD = 1.362); the 61 participants in the very-low-income group had an average music piracy behavior of 3.28 (SD = 1.253); the 87 participants in the low-income group had an average music piracy behavior of 3.20 (SD = 1.055); the 25 participants in the moderate-income group had an average music piracy behavior of 2.80 (SD = 1.323); the 7 participants in the high-income group had an average music piracy behavior of 3.43 (SD = .976); the 15 participants in the very-high-income group had an average music piracy behavior of 2.93 (SD = 1.387); However, the effect of income was weakly supported, F(5,217) = 2.238, p=.052. Hence, the effects of income levels were not supported to be related to three kinds of digital piracy behavior.

5.0 Implications and Conclusion

There are some limitations of the study such as convenient samples and respondents from Thailand only. Further research is needed to refine the result. Nevertheless, following findings and discussions could be applied by producers of copyrighted products and stakeholders to lower youths' piracy levels. General intention to pirate digital products affects illegally downloading or buying and keeping all copyrighted products (software, movies, and music). The factor, namely subjective norms, is the most important predictor of the intention to involve digital piracy, then the moral factor and the attitude towards digital piracy factor. The attitude towards downloading or buying unauthorized copies and subjective norms can also decreased by youths'

perceived moral obligation. However, there are no impacts of product prices, youths' idols, and fears of legal punishment on digital piracy.

Although the subjective norm is the most influence factor driving the intention to pirate, it can be decreased by perceived moral obligation. Copyrighted owners should create campaigns or support activities relating to moral building such as finding a moral ambassador from youth's communities to be a high-moral presenter, informing youth's communities about the effects of digital piracy, etc. Parents or teachers should integrate morals to the topics, which they teach their youths. Key person in the youth group should be emphasized about the importance of buying legitimate copies. They should be suggested to inform their peers about disadvantages of digital piracy to the community. Youths should be convinced to persuade their friends to perform ethical behavior. In terms of insignificant factors, youths may not fear legal punishment due to their lack of awareness. In addition, intellectual property law should be strongly enforced to show risks from digital piracy. Prices of copyrighted products may not affect them because of their familiarity to illegally download from internet, so they do not have to care much about the prices. Idolatry shows no direct effects on youths' intentions. However, idols can make the key youths realized the consequences of digital piracy to their life.

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