

## **MUSIC PIRACY IN TRANSITIONAL POST-SOVIET ECONOMIES: ETHICS, LEGISLATION, AND EXPERTISE**

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*Abstract:* The growing development of Internet technologies in the world has created vast opportunities for illegal downloading and pirating of music. The purpose of the study is to examine the influence of social norms and ethics, perceived risk of personal harm, and consumer expertise of file-sharing on digital piracy in post-Soviet economies. A total sample of 226 respondents from Russia, Kazakhstan, and Kyrgyzstan is used to examine factors influencing intentions to pirate digital music. The study reveals that the wide social acceptance of digital piracy in post-Soviet countries along with consumer expertise in file-sharing contributes to higher music piracy, while the risk of personal harm is not significant. Conclusions and recommendations are made for music companies and policy makers.

*Keywords:* Digital music piracy, transitional economies, ethics

### **1. Introduction**

Internet use is growing rapidly all over the world including transitional economies. According to Internet World Stats, in the last decade there has been a 380.3 percent growth in the Internet usage in the world. In 2010, only in Russia Internet penetration has reached 42.8 percent, which means 59,700,000 Internet users (Internet World Stats). With the increased number of Internet users and developments in computer technologies, utilization of the Internet has expanded from academic and job-related tasks to communication and personal entertainment including music consumption. Music is different from most of other products as it is very often consumed before it is purchased (Lacher, 1989). Consumers can hear music in public places, on television or radio and if a person likes the music he/she might want to acquire a copy and choose when to listen to it again. Thus, the need to reexperience is a dominant factor leading to intention to acquire music (Lacher and Mizerski, 1994). The question is to identify factors influencing consumer decision how to acquire music - to buy or download illegally.

Digital music is very similar to software products and often characterized as an information good. It is expensive to produce the first copy but cheap to reproduce additional copies. Gopal *et al.* (2004) identified several factors that make digital music different from software products. They pointed out small size of music files and high volume of various music on the market as well as cheaper price of music CDs comparing with software packages and no need for support from the

creator. These differences blended with developments in computer technologies and creation of Internet sites such as Napster, KaZaA, Grokster have made it easy for people to freely distribute, download, and copy music in digital format anywhere in the world (Chen, 2007). Illegal music file-sharing is considered as an easy way for music fans to obtain free products and contrary, as an act of thievery that erodes sales and profits for record companies and artists (Levin *et al.* 2007). The number of illegally shared music files on the internet is approximately 40 billion, which makes a piracy rate of 95 percent (Digital Music Report, 2009). In response to an increased music thievery, record companies and their partners have started filing lawsuits against peer-to-peer (P2P) file-sharing technology services and Internet service providers (Oberholzer-Gee and Strumpf, 2007). In 2001, Napster, the largest P2P music trading site, was found liable for both contributory and vicarious copyright infringement. Record industry claimed that "Napster's users were essentially stealing profits from the companies and artists by downloading songs without paying" (Levin *et al.* 2004, p.48). Nevertheless, despite the failure of Napster and the focus of the recording industry on prosecuting any online music store that aims to replace it, experts predict that Internet song swapping is here to stay (Jaisingh, 2007). Litigations against P2P services have expanded to almost the whole world. Chen (2007) in his survey summarizes lawsuits in USA, Australia, Japan, Korea, Taiwan, and Netherlands. However, law suits are often impossible in many transitional and developing countries due to the lack of the developed legislation on copyright. Research on digital piracy in Eastern Europe and Central Asia is very limited. There might be multiple reasons for people to engage in illegal downloading and music piracy and there might be many implications of such behavior for policy makers and music industry (Quellet, 2007).

The present study examines digital piracy of music in post-Soviet states. The countries in this region are in transition from centrally planned to market economies; the social norms, legislation, economical, political and technological situation create unique environment influencing consumer intentions and behavior toward digital piracy. The purpose of this paper is to examine the influence of social norms and ethics, perceived risk of personal harm, and consumer expertise of file-sharing on digital piracy in post-Soviet countries.

## **2. Conceptual Framework**

### **2.1. Consumer Ethics and Social Norms**

The negative impact of illegal [music downloading](#) on music industry has spurred research on economic and behavioral understanding of digital music piracy. Previous research proposed a number of variables to explain consumer intentions and illegal music downloading behavior. A stream of studies uses concepts of ethics, social norms, and moral judgment to model consumer digital piracy (Levin *et al.* 2004; Sinha and Mandel, 2008; Pryor *et al.* 2008; Al-Rafee, 2002). Gopal *et al.* (2004) applied their general model for ethical behavior (Gopal and Sanders, 1998) based on model of marketing ethics (Hunt and Vitell, 1986), concept of ethical predisposition (Brady and Wheeler, 1996), and framework for ethical behavior in the use of computerized information (Raghunathan and Saftner, 1995) to propose a

behavioral model of digital music piracy that captures the influence of ethical predispositions, economic benefits, and personal consumer characteristics to explain digital music piracy. The results indicated the strong path coefficient from Ethical Index, a measure of individual ethical propensity, to piracy level. Taylor (2004), in her survey of students majoring in business and music, found that students who never downloaded music illegally were the most likely to perceive such behavior as unethical and unfair to the music industry. In a study of digital piracy behavior in an Arab and a Middle Eastern country, religion and awareness were contributors to a decline in digital piracy (Al-Rafee and Rouibah, 2010).

Studies on music consumption have also applied the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) to explain illegal downloading of music (LaRose and Kim, 2007; Pryor *et al.* 2008; Levin *et al.* 2007). The TRA states that a person's behavioral intention depends on the person's attitudes about the behavior and perception of subjective norms or in other words perception that the people who are important to the person think he should or should not perform the behavior in question (Fishbein and Azjen, 1975). Social norms and attitudes guide behavioral intention and if a person intends to do a particular behavior then it is most likely that the person will do it. Huang (2005) found that the more "right" consumers judge themselves to be in regard to music file sharing, the more intensely they consume music via file sharing. However, social norms and attitudes are not weighted equally in forming behavior. Miller (2005) explained that depending on the individual and the situation, these factors might have different effects on behavioral intention. Thus, Palesh *et al.* (2004) report that many Russian students believe that people make too much fuss about downloading music on the Internet without paying. They state that "political and historical context of Russian society may have led to a legacy of tolerating or even endorsing types of activities involving Internet use that would normally be viewed as illicit" (Palesh *et al.* 2004, p.557).

Indeed, the culture of "stealing" is still alive in Newly Independent States, where during Soviet era there was a saying "Everything around belongs to the public, so everything around belongs to me". Stealing from one's workplaces has been a common practice in all industries and among all levels in a society. With decreased trust to the state and mentality that "The state steals everything it can from people. The people steal everything they can from the state", stealing became a "skill of well being" in the Soviet society. Stealing did not contradict social norms as long as you have not been caught, and did not steal from your friends or the people you know. Barsukova (2004) noted that during the late Soviet time image of stealing from public (nation) was viewed as a mean to rehabilitate justice in a society. There was not much room for private life of the Soviet people (Shlapentokh, 1989). As a counterbalance to the decreased trust to the state, social networks appeared to existence extending people's resources (Humphrey and Schmitz, 1998) and reinforcing their beliefs about stealing. The collectivistic culture still prevails in post-Soviet countries with "One is not a soldier in the battlefield" way of thinking. As the culture was nonindividualistic and the Soviet economy was built on collective property, the term "private property" did not exist at all and people did not care about intellectual property as well. In transition to market economy, stealing remains to be a big challenge for doing business in post-Soviet countries (Trapkova, 2004). Thus, the wide social acceptance of digital piracy or stealing music can be attributed to specific historical and cultural context of post-Soviet countries. It is hypothesized that the higher consumer perception that digital music

pirating is socially acceptable, the higher probability of digital music pirating in post-Soviet countries (H1).

## 2.2. Perceived Risk of Personal Harm

Digital piracy behavior can be modeled as a utility maximization behavior. Becker (1968) first used economic analysis to explain criminal behavior. His Model of Crime assumes that criminals are rational individuals maximizing their utility. If expected benefits outweigh the costs of the behavior, crime pays. The higher risk of being caught would decrease the likelihood of illegal downloading. The perceived risk associated with risky behavior like digital pirating can be broken into two categories: Uncertainty such as probability of getting caught and adverse consequences like punishment (Bauer, 1960). As people are risk averse in general, the increase in easier probability of being caught or degree of punishment should lead to the decrease in illegal music downloading. In 2003, record companies began prosecuting not only file-sharing technology service and Internet service providers, but individual users of P2P services who download music without paying (Wingfield and Smith, 2003). Moreover, more severe penalties, such as a fine of \$750 per copyright infringement, were imposed to reduce illegal downloading (Barker, 2004). In a series of two experiments, Levin *et al.* (2007) found that the stronger threat appeal lessened the likelihood of illegal music downloading of students in future. They recommended "the use of severe threats to be an effective way to diminish the likelihood of downloading" (Levin *et al.* 2007, p.121). However, the results of three studies undertaken by Sinha and Mandel (2008) indicated that the use of fear and shame appeals to stop digital piracy may be effective only for certain consumer segments and perceived risk may have a limited effect on decreasing digital piracy. Specifically, in Russia, unpaid music downloading is not always against legislation, which has not been well-detailed and enforced for long. The Constitution of the Russian Federation (article 44) states in general terms that intellectual property shall be protected by law, but there is no mechanism to actually protect intellectual rights. The law on intellectual rights was approved on July 9, 1993. At that time not many officials heard of the Internet, so downloading was not covered by the law. **The hole in legislation existing for more than ten years led to the creation of Internet sites and online MP3 shops like [tunesies2.club](http://tunesies2.club) where consumers could easily download music for free or at least 10 times cheaper than from Western online music stores.** These services are perfectly legal in Russia. The legislature introduced compulsory licenses. Firms are legal to distribute any music they want if they prove that they keep track of what they distribute and they pay to the local collection agency. Any firm can get this type of the license to distribute and sell digital music. Often the sites offer music not available for sale in the U.S. where copyright holders have been preventing the sale of this music online.

Nevertheless, the fight against digital piracy in the USA and Europe echoed the post-Soviet countries as well. The International Federation of the Phonographic Industry (IFPI) filed a claim on AllOfMP3.com in 2005. The same site was mentioned in a WTO report (National Trade Estimate Report on Foreign Trade Barriers) and its closure was named as a critical condition for Russia to enter the WTO. Under the pressure from the Western world, Russia revised and moved amendments into its legislation. A new law on Copyright and Neighboring Rights including performances and records was effective from January 1, 2008 (Copyright.ru). The criminal code of the

Russian Federation introduced fines for minor infringement of intellectual rights and imprisonment for up to six years for major outrage (Criminal Code of the Russian Federation, Article 146, Violation of Copyright and Neighboring Rights). In 2010, officials have started the discussion of new amendments regarding the copyright and the use of Internet. Unfortunately, delays in lawmaking were followed by weak enforcement of those laws. The tools and procedures have not been developed to fight digital piracy. The other post-Soviet countries have similar or even less-developed legislation on intellectual property.

Ehrlich (1973) modeled utility as a function of wealth and time. If a crime occurs, there are two outcomes for the offender: either getting caught and being penalized or getting away and increasing wealth. As the penalties for digital piracy in post-Soviet countries are not severe and there are almost no mechanisms to catch people engaged in illegal music downloading, consumers who pirate music do not perceive the risk of personal harm and can easily get away with increased wealth in terms of acquired for free music. Thus, hypothesis 2 assumes that there is no significant relationship between the perceived risk of personal harm and intention to pirate music in transitional post-Soviet economies.

### *2.3. Ability to Access Music on the Internet and Consumer File-Sharing Expertise*

According to Becker (1965), households use resources in efficient way to produce utility while minimizing cost. The main types of the resources are: time, capital items, and money. Households can produce goods and services like businesses following the same principles as the firm (Michael and Becker, 1973). Recent developments in computer technologies and high speed Internet connections provide individuals with greater opportunities for producing own copies of music by downloading, burning CDs, or other forms of music file sharing. Ferrel and Gresham (1985) state that opportunity has an impact on the process of ethical/unethical decision making. Opportunity is a favorable set of conditions which eliminate barriers or provide rewards for behavior. High speed Internet removes barriers that limited abilities of users to download music files. In 2010, Internet penetration has reached 42.8, 34.3, and 39.8 percent of population in Russia, Kazakhstan and Kyrgyzstan respectively (Internet World Stats). Broadband internet services are provided by local area networks almost in any Russian city and in big cities in Kazakhstan and Kyrgyzstan. Russia was ranked number 45 on Download Speed and Download Rate in a list of 159 countries (Internet Speed Tests). As it does not take very long time or special capital items to download music and burn a CD, consumers would more likely exhibit digital piracy behavior. The definition of "computer literacy" is still evolving (Sweaney *et al.* 2001). With Internet embedded to many areas of life and work, there is an improvement in consumers' knowledge and skills to search and download from Internet. Applying to online purchase behavior, Kwax *et al.* (2002) found that information request experience and Internet usage were positively related to the likelihood of purchasing on-line. Huang (2005) stated that higher level of file-sharing expertise led to more intense sharing behavior. Thus, with developments of Internet technologies and improvements in consumer Internet and computer literacy in post-Soviet countries, it is hypothesized that increases in consumers' expertise of music file sharing will increase the probability of digital pirating of music (H3).

### 3. Methodology

#### 3.1. Sampling and Data-Collection Methods

The focus of the study is digital piracy of music in transitional post-Soviet economies. Thus, Russia, Kazakhstan, and Kyrgyzstan are selected as countries in transition from a Soviet centrally planned regime to a free market economy. Compared with stable economical and political situation in Russia and Kazakhstan, Kyrgyzstan recently has experienced a period of political turmoil. Nevertheless, Kyrgyzstan is added to the sample as a country with high level of digital piracy. According to the Kyrgyzstan State Intellectual Property agency, 90 percent of audio and video discs and computer software programs in Kyrgyzstan are produced illegally (Centralasiaonline). Being for more than seventy years states of the USSR, in all three countries there is a heritage of the Soviet culture including a mentality of stealing from public.

The study uses a combination of convenience and snowball sampling (Biernacki and Waldorf, 1981). A method of structured survey and electronic contact method were used. As a low response rate was expected for the electronic contact method, the initial sample of respondents was reached via the network of the Junior Faculty Development Program (JFDP) association in the countries studied. Contacting educators via professional and social electronic networks gave access to students - the main interest group who might be engaged in digital piracy. As students represent young population who are fans of music, other studies used students as well to study illegal downloading and digital piracy (Bhattacharjee *et al.* 2003; LaRose and Kim, 2007; Levin *et al.* 2007; Cronan and Al-Rafee, 2008).

A cover letter explaining the purpose of research and assuring the anonymity of respondents was attached to the electronic mail along with instructions and the survey in Russian language. The respondents were asked to forward this email to their students by email and/or administer a paper version of the survey. Due to the limited JFDP network and low number of educational institutions in Kyrgyzstan, the final sample from this country consisted of only 36 completed surveys compared with 103 for Kazakhstan and 87 for Russia. As the focus of the study is pirating intentions in post-Soviet economies, responses from three countries were combined into one sample and totaled 226. Details of the sample are in Table 1.

**Table 1. Demographic Data**

<b>Sample Characteristics</b>	
Sample size	226
Median age, years	20
Percent male	48.5
Percent employed full time	8.3
Percent employed part time	25.7
Percent of households with income less than average in a country	13.8
Percent of households with income greater than average in a country	11.7
Percent Internet at home	41.1
Percent Internet at work/school	84.5

#### 3.2. Measurement

The measures for the constructs for this research are derived from the existing literature. The survey contains measures for the following constructs: Perception of Social Ethics (ETHICS), Perceived Risks of Personal Harm (RISK), Expertise of File-Sharing (EXPERT), and Intention to Pirate (PIRATE). The study uses intention to pirate as a predictor of digital piracy behavior; if a person intends to do a particular behavior then it is most likely that the person will do it (Fishbein and Ajzen, 1975; Ajzen, 1991). The variable PIRATE is measured by three items derived from Theory of Planned Behavior (Madden *et al.* 1992) and used by Al-Rafee and Rouibah (2010) in their experiment to deter digital piracy. The measures of independent variables ETHICS and RISK are adapted from Pryor *et al.* (2008). Four items measuring expertise of file sharing are based on consumer expertise scale of Kleiser and Mantel (1994) and borrowed from Huang (2005). All variables are measured on a seven-point Likert-type scale (1=strongly disagree, 7=strongly agree). The survey instrument contained some open-ended questions related to demographic variables (i.e., age, education, and employment status). Respondents were asked to classify their household's monthly income as compared to the general population in the country into one of three groups (i.e., average, and above or below the average). As all countries are Russian speaking, the original scale items were double-blind translated into Russian and back into English as specified by Craig and Douglas (1999) to check for any possible translation errors and inconsistencies. The final version was pretested on a convenience sample of 25 students.

#### 4. Results

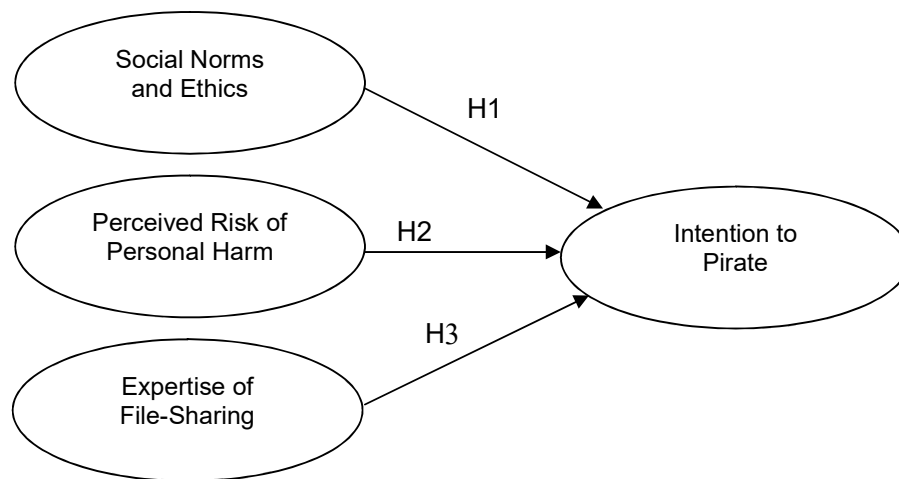
The means and standard deviations of the items are shown in Table 2. Taking into account that the score for intention to pirate is measured from 1 to 7, scores high than 4 indicate higher than average intention to pirate.

**Table 2. Measures**

<b>Construct/Item</b>	<b>Mean</b>	<b>SD</b>
<b><u>Intention to Pirate (PIRATE)</u></b>		
I intend to pirate digital music in the future	5.32	1.23
I will make an effort to pirate digital music in the future	5.60	1.49
I will try to pirate digital music in the future	5.55	1.37
<b><u>Perception of Social Ethics (ETHICS)</u></b>		
No one is harmed when people copy music	4.78	1.25
The fact that many other people download music for free makes it okay for me to do it	5.39	1.01
It is ethical to copy music without permission	4.05	1.68
<b><u>Perceived Risks of Personal Harm (RISK)</u></b>		
There could be risks, such as a virus, from downloading unpaid music	2.36	1.12
There is a significant chance of getting caught when illegally obtaining music	1.48	0.86
There are severe penalties for those caught stealing music	1.54	0.79
<b><u>Expertise of File Sharing (EXPERT)</u></b>		
I know clearly how to access MP3 music files	5.32	1.25
I can get MP3 files that I need without much effort	5.48	1.32
Once I get it, I know clearly how to play MP3 file	5.85	1.03
I can name a variety of ways to get MP3 files that I may want	4.64	1.84

Factor analysis and reliability measures are performed on each scale due to the problems inherent with administering scales developed in English language to foreign respondents. All items produce high loadings (more than 0.6). Cronbach's alpha ranges from 0.67 for RISK to 0.87 for PIRATE. The Kaiser-Meyer-Olkin measure (KMO=0.83) is performed to ensure sampling adequacy (Snedecor and Cochran, 1989). To test hypotheses, a structural equation modeling (SEM) approach is used for the analysis. The model is shown in Figure 1 and estimated by MLE in LISREL.

8. Correlations between within construct items are allowed. A model shows an acceptable fit to the data (see Table 3). The Chi-Squared statistic is significant due to the sample size. The CFI is above the 0.90 cutoff recommended (Hu and Bentler, 1999). The RMSEA is below the 0.08 level as suggested by Browne and Cudeck (1993).



**Figure 1. Hypothesized Model**

**Table 3. Structural Equation Models' Goodness of Fit**

Fit Measures	
Chi-square	104.78
p-value for chi-square	<0.05
Root mean square error of approximation (RMSEA)	0.064
Comparative fit index	0.93

Overall, all of the hypotheses are supported. Table 4 reports the model estimates and t-values. The hypothesis H1, which assumes that the higher consumer perception that digital music pirating is socially acceptable, the higher probability of digital music pirating in post-Soviet countries, is supported. No significant relationship between the perceived risk of personal harm and intention to pirate music in post-Soviet countries is found. Thus, the hypothesis 2 assuming the lack of the relationship is supported. Hypothesis 3, stating that increases in consumers' expertise of music file sharing will increase the probability of digital pirating of music, is strongly supported.

**Table 4. Hypotheses Results**

Hypotheses	Linkage	Est. (t-value)	Result
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H1:	ETHICS PIRATE (+)	0.76 (3.60)	Supported
H2:	RISK (no relationship) PIRATE	-0.34(-1.33)	Supported
H3:	EXPERT PIRATE (+)	2.02(3.91)	Supported

## 5. Discussion

The current study examines the effect of three factors on intention to pirate digital music in post-Soviet countries. Perception of social norms and ethics along with consumer expertise of music file-sharing are found to have a significant influence on intention to pirate while perceived risk of personal harm is not significant.

The findings of the current research related to social norms and ethics confirm the results of the previous research that downloaders have lesser ethical concern (Levin *et al.* 2004) and that appealing to the sense of ethics is unlikely to be effective among students (Sinha and Mandel, 2008). In the context of post-Soviet countries, digital piracy looks similar to stealing from public, which is a “skill of well being” in the Soviet society. Going around rules is cultivated in a society (Shkaratan and Karacharovskiy, 2002); ignoring regulations of formal institutions is a survival response to external environment (Barsukova, 2004).

On the other hand, wide social acceptance of music downloading and high intentions to pirate can be explained by weak enforcement of intellectual copyright legislation. Illegal downloading has become a norm, as no one is ever caught and penalized for downloading music without paying for it. As perceptions of social norms and ethics are very slow to change, the efforts to use fear or shame appeals to prevent digital piracy of music might be ineffective in the short run. Due to different reasons such as entering WTO for Russia or setting an objective to become one of the fifty most developed countries in the world for Kazakhstan, local governments promote ethical principles including protection of copyright. It might help to shape consumers' perceptions overtime that digital piracy is unethical. Development and enforcement of copyright legislation on the one hand and education of consumers about risks of downloading illegally and benefits of licensed production on the other might change the consumer attitudes toward music downloading and reduce music theft overtime. Russia has already demonstrated its desire to match international standards and prevent piracy. Officials in Moscow discuss amendments into the current legislation specifying that not only Internet service providers should be prosecuted but individuals who download music without paying.

Consumers' ability to download music from the Internet and expertise in file-sharing are positively related to pirating intentions, as it is assumed from previous research. As in transitional economies population has wider access to Internet at working and educational places in comparison with home usage of Internet (84.5 against 41.1 percent for this study), cooperation with business and academic organizations by posing technical and legal barriers to download at work or school could decrease illegal downloading.

The factors studied in this paper are out of control of music industry. However, in a market undergoing a fundamental change from tapes and CDs to on-line music, the specifics of post-Soviet countries pose additional challenges to record companies and copyright holders. Weak legislation along with social acceptance of digital piracy and increased expertise in file-sharing make consumers easily access and download music files, thus eroding potential sales and profits of the music industry. It is unlikely that many consumers would buy a copyrighted CD when music is available online

for free or at very ridiculous prices. Overtime, with development and enforcement of copyright legislation, threat appeals might become effective to prevent digital piracy. Nevertheless, the business model of music industry for developed countries flaws in the environment of transitional post-Soviet countries. The adaptations are needed in terms of pricing and distribution of music. Segmented or differentiated prices, additional services not available on-line, legal on-line music stores, customer relationship management may work to reduce digital pirating and increase legal sales of music.

## 6. Future Research and Implications

While the current research examines social ethics, risk of personal harm, and expertise of file-sharing in post-Soviet countries, future research should address other factors that might influence consumer intentions to pirate music. Relative to the average income in the countries studied, the price for licensed CDs is very high, thus the market price of music shall play a major role in decision to buy or “steal”. Moreover, the relative quality of purchased versus downloaded or copied music was not examined. Comparative study of legislation in post-Soviet countries might provide insights on the use of threat appeals to deter pirating.

The sample used for this study consisted mostly of young people, who use Internet at school or work. Thus, the findings can not be generalized. Future research shall examine pirating intentions and behavior among different age groups and levels of Internet literacy and expertise in file-sharing. Research on music preferences and consumer attitudes toward Western music industry and local artists could be also of interest.

## References

- Ajzen, I., 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(1), pp.179–211.
- Al-Rafee, S., 2002. *Digital Piracy: Ethical Decision-Making*. Ph.D. University of Arkansas.
- Al-Rafee, S. and Rouibah, K., 2010. The fight against digital piracy: An experiment. *Telematics and Informatics*, 27(3), pp.283-292.
- Barker, J.C., 2004. Grossly excessive penalties in the battle against illegal file-sharing: The troubling effects of aggregating minimum statutory damages for copyright infringement. *Texas Law Review*, 83(2), pp.525-559.
- Barsukova, S., 2004. *Informal economics: Economical and social analysis*. Moscow: GU-HSE.
- Bauer, R.A., 1960. Consumer behavior as risk taking. In: R.S. Hancock, ed. *Dynamic Marketing for a Changing World*. Chicago: American Marketing Association, pp.389-398.
- Becker, G.S., 1965. A theory of the allocation of time. *Economic Journal*, 75(299), pp.493-517.
- Becker, G.S., 1968. Crime and punishment: An economic approach. *The Journal of Political Economy*, 76(2), pp.169-217.
- Bhattacharjee S. Gopal R.D. and Sanders G.L., 2003. Digital music and online sharing: Software piracy 2.0? *Communication of the ACM*, 46(7), pp.107-111.

- Biernacki, P. and Waldorf, D., 1981. Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods and Research*, 10(2), pp.141-163.
- Brady, F.N. and Wheeler, G.E., 1996. An empirical study of ethical predispositions. *Journal of Business Ethics*, 15(7), pp.927-940.
- Browne, M.W. and Cudeck, R., 1993. Alternative ways in assessing model fit. In: K. Bollen and S. Long, ed. *Testing Structural Equation Models*. Newbury Park: Sage Publications.
- Centralasiaonline, 2009. *Kyrgyzstan's creative professionals ask for copyright protection*. [online] Available at: <[http://centralasiaonline.com/cocoon/caii/xhtml/en\\_GB/features/caii/features/2009/11/06/feature-03](http://centralasiaonline.com/cocoon/caii/xhtml/en_GB/features/caii/features/2009/11/06/feature-03)> [Accessed 17 September 2010].
- Chen A.C., 2007. Copy locally, share globally: A survey of P2P litigation around the world and the effect on the technology behind unauthorized file sharing. *Intellectual Property & Technology Law Journal*, 19(9), pp.1-4.
- Constitution of the Russian Federation. Article 44. [online] Available at: <<http://www.constitution.ru/en/10003000-03.htm>> [Accessed 17 September 2010].
- Copyright.ru. *Copyright and neighboring rights*. [online] Available at: <[http://copyright.ru/ru/documents/zashita\\_avtorskih\\_prav/](http://copyright.ru/ru/documents/zashita_avtorskih_prav/)> [Accessed 17 September 2010].
- Craig, C.S. and Douglas, S.P., 1999. *International Marketing Research*. New York: John Wiley & Sons.
- Criminal Code of the Russian Federation, Article 146, *Violation of Copyright and Neighboring Rights*. [online] Available at: <<http://www.russiancriminal-code.com/PartII/SectionVII/Chapter19.html>> [Accessed 17 September 2010].
- Cronan, T.P. and Al-Rafee, S., 2008. Factors that influence the intention to pirate software and media. *Journal of Business Ethics*, 78(4), pp.527–545.
- Digital Music Report, 2009. *New business models for a changing environment*. [online] Available at: <<http://www.ifpi.org/content/library/DMR2009-real.pdf>> [Accessed 27 July 2010].
- Ehrlich I., 1973. Participation in illegitimate activities: A theoretical and empirical investigation. *Journal of Political Economy*, 81(3), pp.521-565.
- Ferrell, J.C. and Gresham, L.G., 1985. A contingency framework for understanding ethical decision making in marketing. *Journal of Marketing*, 49(3), pp.87-96.
- Fishbein, M. and Ajzen, I. 1975. *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Gopal, R.D. and Sanders, G.L., 1998. International software piracy: analysis of key issues and impacts. *Information Systems Research*, 9(4), pp.380-397.
- Gopal, R.D. Sanders, G.L. Bhattacharjee S. Agrawal, M. and Wagner, S.C., 2004. A behavioral model of digital music piracy. *Journal of Organizational Computing and Electronic Commerce*, 14(2), pp.89-105.
- Hu, L.T. and Bentler, P.M., 1999. Cutoff criteria for fit Indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), pp.1–55.
- Huang, C.Y., 2005. File sharing as a form of music consumption. *International Journal of Electronic Commerce*, 9(4), pp.37-55

- Humphrey, J. and Schmitz, H., 1998. Trust and inter-firm relations in developing and transition economies. *The Journal of Development Studies*, 34(4), pp.32–61.
- Hunt, S.D. and Vitell, S., 1986. A general theory of marketing ethics. *Journal of Macro-Marketing*, 8(1), pp.5-16.
- Internet Speed Tests. [online] Available at: <<http://www.speedtests.net/world/>> [Accessed 17 September 2010].
- Internet World Stats. [online] Available at: <<http://www.internetworldstats.com/stats4.htm#europe>> [Accessed 27 July 2010].
- Jaisingh, J., 2007. Piracy on file-sharing networks: Strategies for record companies. *Journal of Organizational Computing and Electronic Commerce*, 17(4), pp.329-348.
- Kleiser, S.B. and Mantel, S.P., 1994. The dimensions of consumer expertise: A scale development. In: *AMA Summer Educators' Proceedings*, 5, pp.20-26.
- Kwax, H. Fox, R.J. and Zinkhan, G.M., 2002. What products can be successfully promoted and sold via the Internet? *Journal of Advertising*, 42(1), pp.23–38.
- Lacher, K.T., 1989. Hedonic Consumption: Music as a Product. In: T.K. Srull ed. *Advances in Consumer research*. Provo, UT: Association for Consumer Research, 16, pp.367-373.
- Lacher, K.T. and Mizerski, R., 1994. An exploratory study of the responses and relationships involved in the evaluation of and in the Intention to purchase new rock music. *Journal of Consumer Research*, 21(2), pp.366-380.
- LaRose, R. and Kim, J., 2007. A Social cognitive perspective of music downloading. *CyberPsychology & Behavior*, 10(2), pp.267-277.
- Levin, A.M. Dato-on, M.C. and Manolis, C., 2007. Deterring illegal downloading: The effects of threat appeals, past behavior, subjective norms, and attributions of harm. *Journal of Consumer Behavior*, 6(23), pp.111-122.
- Levin, A.M., Dato-on, M.C., and Phee, K., 2004. Money for nothing and hits for free: The ethics of downloading music from peer-to-peer web sites. *Journal of Marketing Theory and Practice*, 12(1), pp.48-60.
- Madden, T. Ellen, P. and Ajzen, I., 1992. A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18(1), pp.3–9.
- Michael, R.T. and Becker, G.S., 1973. On the new theory of consumer behavior. *Swedish Journal of Economics*, 75(4), pp.378-396.
- Miller, K., 2005. *Communications theories: perspectives, processes, and contexts*. New York: McGraw-Hill.
- Oberholzer-Gee, F. and Strumpf, K., 2007. The effects of file sharing on record sales: an empirical analysis. *Journal of Political Economy*, 115(1), pp.1-42.
- Palesh, O. Saltzman, K. and Koopman, C., 2004. Internet use and attitudes towards illicit internet use behavior in a sample of Russian college students. *Cyberpsychology and Behavior*, 7(5), pp.553-558.
- Pryor, A. Dalenarg, D. McCorkle, D. Reardon, J. and Wicks, J., 2008. Buy or Burn?: Empirical tests of models of crime using data from a general population. *The Social Science Journal*, 45(1), pp.95-106.
- Quellet, J.F., 2007. The purchase versus illegal download of music by consumers: the influence of consumer response towards the artist and music. *Canadian Journal of Administrative Science*, 24(2), pp.107-119.

- Raghunathan, B. and Saftner, D., 1995. Perceptions of ethical behavior in the use of computerized information. *Business and Professional Ethics Journal*, 14(2), pp.47-76.
- Shkaratan, O. and Karacharovskiy, V., 2002. Russian labor and management culture: Research in the context of economic growth. *Mir Rossii*, 11(1), pp.3-56.
- Shlapentokh, V., 1989. *Public and private life of the Soviet people: changing values in Post-Stalin Russia*. New York: Oxford University Press.
- Sinha, R. and Mandel, N., 2008. Preventing digital music piracy: The carrot or the stick? *Journal of Marketing*, 72(1), pp.1-15.
- Snedecor, G.W. and Cochran, W.G., 1989. *Statistical methods*, 8th ed. Iowa: Iowa State University Press.
- Sweaney, A.L. Manley, K.S. Meeks, C.B. and Valente, J.S., 2001. Computer experience and skills of family and consumer sciences undergraduates and professionals. *Education*, 121(4), pp.773–780.
- Taylor, S.L., 2004. Music piracy - differences in the ethical perceptions of business majors and music business majors. *Journal of Education for Business*, 79(5), pp.306-310.
- Trapkova, A., 2004. Trust in Russian small and medium business. *Obzhestvennye Nauki I Sovremennost*, 4, pp.36–48.
- Wingfield, N. and Smith, E., 2003. The high cost of sharing. *Wall Street Journal*, 3 Sep. p.b1.