

# CONSUMER DECISION MODEL OF INTELLECTUAL PROPERTY THEFT IN EMERGING MARKETS

**Gordana Lalović<sup>1</sup>,**

*Faculty of Economics, University of Ljubljana, Slovenia*

**Saule Amirebayeva Reardon<sup>2</sup>,**

*Monfort College of Business, University of Northern Colorado, USA*

**Irena Vida<sup>3</sup>,**

*Faculty of Economics, University of Ljubljana, Slovenia*

**James Reardon<sup>4</sup>,**

*Monfort College of Business, University of Northern Colorado, USA*

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**Abstract:** *The increasing importance of digital piracy has prompted research on the behavioural and economics origins of illegal downloading activities. This research focuses on the potential impact of various economic, psychological and social factors on the consumer decision whether to buy or to steal music in emerging markets. These markets present specific difficulties for owners of intellectual property rights due to the high level of both downloading and 'sharing' of digital property. Results indicate impacts of price, downloaded music quality, ease of Internet use, attitudes toward music industry and ethical perception of music downloading on consumer purchase or pirate decision.*

**Key words:** *intellectual property, digital music piracy, music downloading, emerging markets*

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The phenomenon of unauthorized mass downloading of copyrighted content has been a problem for legislators, courts, and film/music industries for decades. Due to the speed of the Internet revolution, legislation has not successfully kept pace with technology. In addition to public uncertainties regarding legal consequences of downloading music

<sup>1</sup> E-mail: [gordanalalovic@gmail.com](mailto:gordanalalovic@gmail.com)

<sup>2</sup> E-mail: [saule.reardon@unco.edu](mailto:saule.reardon@unco.edu)

<sup>3</sup> E-mail: [irena.vida@ef.uni-lj.si](mailto:irena.vida@ef.uni-lj.si)

<sup>4</sup> Corresponding author. Department of Marketing, Campus Box 128, Monfort College of Business, University of Northern Colorado, Greeley, Colorado, 80639 USA. Tel.: +1-970-351-1251. E-mail. [james.reardon@unco.edu](mailto:james.reardon@unco.edu)

from the Internet, there are also consumer misperceptions regarding the legal use of copyrighted material. In fact, many consumers believe that downloading material from Internet is permitted and legal. The prevalence of internet piracy is central to question the survival of the music industry itself, which is faced with income stagnation, primarily due to the spread of technologies which allow online file-sharing.

The rapid development of technologies enables customers to create high-quality copies of digital-based intellectual property (i.e., music and movies), with characteristics identical to the original, thus increasing the attractiveness of illegal copying. This near effortless downloading of free music reduces the willingness of consumers to buy retail music and increases the inclination of consumers to illegal behaviour. The increasing number of illegal distribution channels increases the difficulty in marketing to those consumers that purchase music legally. In fact, it is difficult for businesses to predict consumers' buying behaviour, which prevents the segmentation to those who buy the music and those who have illegally downloaded it from the Internet.

The increasing importance of digital piracy has spurred research designed to understand the behaviour and the economics of digital pirating activity. The present research builds on previous studies that indicate the influence of some factors on consumer pirated behaviour and deepens the knowledge of possible impact of various economic, psychological and social factors on consumer decisions with respect to intellectual property theft. This issue is especially important as it relates to emerging markets. As advanced economies are the primary developer of intellectual property, pressure to legislate and enforce digital property rights has increased. This has caused many online P2P sites to move to emerging markets. Also, the consumers in many emerging markets have limited discretionary income, by definition. Thus, the economic incentive to access free music and movies becomes more predominant. Many of these markets have also transitioned from a socialist economy, where private property rights were non-existent and to some extent still have limited protections for digital rights beyond formal law and treaty.

The aim of this research is to develop a holistic conceptual model of the consumer purchase or pirate decision which includes both economic and social-psychological theories/models in the context of emerging markets. Several implications from the analysis for managers of music companies are derived. Results can be used for easier understanding of consumer behaviour and design of appropriate marketing strategies. In addition, understanding of consumer behaviour will facilitate the fight of music piracy in emerging markets.

## **Review of Literature**

The mass access and abuse of downloading digital property has prompted significant research into the area. However, to date, much of this research is limited in scope and tends to focus on developed economies. Many of the studies focus on a single factor in isolation.

Gopal, Bhattacharjee, and Sanders (2003) describe the role of Internet access capability and technology, which facilitates/prevents pirate activity. The level of piracy activities increases with the easier access to content. Exploring the impact of legal threats on individuals involved in the activities of illegal online file sharing, Bhattacharjee (2006) found that the behaviour of a significant number of individuals change under the influence of publicly imposed penalties for illegal downloading and music sharing. Papadopoulos (2004) proposes price reduction of copyright products to reduce price differential between legitimate and pirate CDs, which he suggests leads to reduction in pirate markets and facilitates the establishment and growth of the legal market. Music quality is another factor with the influence on consumer decision to download music (Kunze & Mai, 2005, Gopal, Bhattacharjee & Sanders, 2003). Consumers associate quality primarily with the characteristics of legal commercial download services, because in the case of free services, the quality is not constant (Walsh, 2003). Green (2007) and Lysonski & Durvasula (2008) explored the ethical views of students regarding illegal file sharing. Most students believe that music downloading either is not unethical or should not be restricted, unlike the more traditional forms of criminal behaviour, such as physical CD theft. In recent study two factors of influence on students that illegally downloaded music were identified: a moral justification for such behaviour and the principle of “what others are doing” (LaRose & Kim, 2007). The main motives for pirated behaviour found in previous studies are: the status associated with the brand, the use of a particular distribution channel, price, quality, a wide range of assortment and effective customer communication (Prendergast, Chuen & Phau, 2002).

The bases of understanding of individual factors' influence on consumer pirated behaviour are different economic, psychological and social theories, which are Becker's Model of Crime, Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB).

### **Becker's Model of Crime, TRA and TPB**

The Becker model of crime assumes that criminals are rational individuals maximizing their utility. Potential offenders can rationally decide whether they will violate the law. The decision whether to commit a crime is a function of potential benefits and costs for the offender. If the expected net benefit from the execution of the crime outweighs the benefit of the activity performed in accordance with the law, the rational decision of the individual is to violate the law. Expected benefit of this type decreases with the increase of the severity of punishment and the probability of prosecution. Thus, theoretically crime can be suppressed by increasing the probability that offenders will be prosecuted and/or by the increase of the penalties associated with conviction.

The basic assumption of Theory of Reasoned Action (TRA) is that an individual decides on behaviour consciously and controls it. According to the TRA, behaviour depends primarily on specific behavioural intention, which is a function of two

cognitive factors: attitude toward the behaviour and subjective norms. Only attitudes toward the behaviour, and not toward the object, are significant for determination of the behaviour. Attitude consists of beliefs about the consequences of performing the behaviour multiplied by the valuation of these consequences. Subjective norm is seen as a combination of perceived expectations from relevant individuals along with intentions to comply with these expectations -- i.e., the person's perception that most people who are important to him think he should or should not perform the behaviour in question (Ajzen & Fishbein, 1975). The impact of norms on the behaviour is dependent on the individual's motivation to subordinate to social expectations of reference groups.

Ajzen advanced TRA with the Theory of Planned Behavior (TPB) and inclusion of new primary factor – perceived behavioural control, which represents the expectations of one's competence to realize a particular behaviour or the presence of factors that facilitate/prevent the realization of certain behaviours (Ajzen, 2002). This addition accounts for conditions where people have the intention of carrying out behaviour, but the actual behaviour is thwarted because they lack confidence or control over it. This is one of the most predictive persuasion theories. It has been applied to studies of the relations among beliefs, attitudes, behavioural intentions and behaviours in various fields such as advertising, public relations, advertising campaigns and healthcare.

TRA and TPB have attracted considerable attention, especially in the field of consumer behaviour. Not only do the models appear to predict consumer intentions and behaviour quite well, they also provide a relatively simple basis for identifying where and how to target consumers' behavioural change attempts (Sheppard, Hartwick & Warshaw, 1988). TRA and TPB are commonly used in the research of socially unacceptable behaviour, for instance as a theoretical starting point for the research in the field of online buying behaviour (Pavlou, 2001); the explanation and prediction of dishonest ethically questionable activities, such as theft in stores (Tonglet, 2001); as well as software and music piracy (Peace, Galletta & Thong, 2003; Kwong & Lee, 2002).

### **Factors Influencing Internet Music Piracy**

Various internet platforms make it increasingly easier for consumers to search, download and subsequently 'share' music files with others. Programs for audio and video data sharing through P2P networks are used to transfer and exchange music in compressed format with minimal loss of quality. With an increase in Internet connection speed and availability of better search techniques, search and download times for these digital goods is being cut down significantly.

Price is a major determinant in consumer decision-making. Typically, the price difference between the original product and its pirated copy is high, thus the economic incentive for pirating behaviour is higher (Tan, 2002). Gopal and Sanders (1998) emphasized the income effect on the level of digital piracy. Their main recommendation is that the product price should be related to the level of discretionary income. Recent

research results indicate that the income effect is present only in the case of unknown songs, and that individuals with lower income at current prices are more inclined to piracy than buying. The absence of income effect in the case of known songs suggests that the decision to purchase the favourite song is not significantly influenced by discretionary income. This is especially deterministic in emerging economies where the income effect becomes a primary motivation due to limited discretionary income.

The International Chamber of Commerce cites weak legislation in the field of intellectual property, which treats the violation of intellectual property as a 'lesser crime'. The small risk of detection and poor deterrence (fines and prison sentences are minimal), affect the public perception that piracy is a socially accepted behaviour. Most active offenders perceive digital property rights as unrealistic, rules as ambiguous and unclear, while their implementation as statistically improbable. There is a general belief that everything available on the Internet is also legally allowed for downloading and copying. Law and society have successfully developed ethical standards for physical goods, but failed to extend them into digital domain. Many still cannot believe that copying a series of bits, which in no way reduces the quality or availability of original, represents a theft, especially since nothing physically has been taken away from the owner. In many emerging markets, the concept of private property is tentative, at best. The extension of intellectual private property rights is simply beyond comprehension in societies where real property rights are limited.

Numerous studies examine how perceived risks affect consumer decision and behaviour. Generally acceptable theory suggests that risk has a crucial role in consumer behaviour (Mitchell, 1992; Fraedrich and Ferrell, 1992; MacCrimmon et al., 1986; Jacoby and Kaplan, 1972; Bauer, 1960). Havlena and DeSarbo (1991) explained that perceived risks arise in situations where consumers are uncertain about the outcome of a choice and are concerned about the consequences of wrong decisions. Of the six aspects of risk, portrayed by Fraedrich and Ferrell (1992), the risks applicable in the context of music piracy are: a) *financial risk*, which is reflected in terms of time lost and incidental expenses incurred in reinstatement of the computing system and data recovery in case of getting virus while downloading music from unsafe Internet sources; b) consumers face *quality risk* as there is no guarantee that the quality of downloaded music will be equal to the original; c) perceived *physical risk* is omitted because pirated music is unlikely to cause any physical harm to its users. Instead, we propose to include *prosecution risk* because illegal music downloading is infringement of copyright law and consumers run the risk of civil action by the copyright owner. The risk relates to the probability that the acquisition of music would subject the consumer to legal prosecution; d) consumers also face *social risk* because they may be conscious of the image they project to their peers and they may have the desire to identify themselves with certain reference group.

Product quality has a crucial role in music purchase or downloads decision since consumers with high value for music would rather purchase the higher quality CD, and thus realize a greater benefit since digital compression in the case of music downloading

and sharing decreases the quality of music in relation to a CD sound quality (Gopal, Bhattacharjee & Sanders, 2003).

## Model and Hypotheses

Figure 1 presents the conceptual model for empirical study.

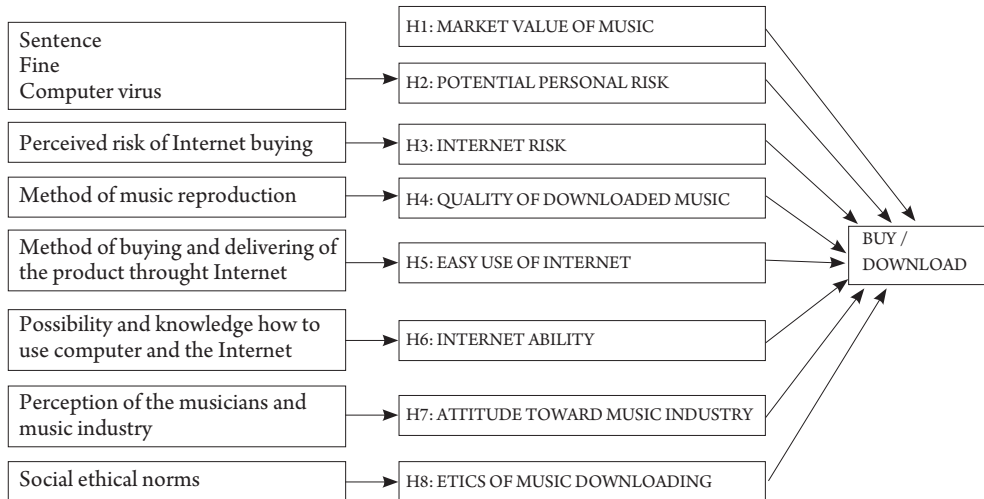


FIGURE 1. Conceptual model of research and correlation of observed variables

According to the Becker theory of crime (1978), the greater the expected benefit arising from a criminal offence, the more profitable is a crime. The increase in price leads to the increase of net value of illegally obtained music, which has positive impact on piracy and growth of grey market (Gopal, Sanders, Bhattacharjee, Agrawal & Wagner, 2004; Papadopoulos, 2004). Gopal (2004) found that in the presence of freely available online music, consumers are highly price-sensitive, while another research indicates that based on the current prices, in the case of new or unknown music, individuals are more likely to pirate rather than purchase (Bhattacharjee, Gopal & Sanders, 2003).

H<sub>1</sub>: The higher the value of the music (thus cost), the more likely the consumer will download rather than buy.

According to the Becker theory of crime, increased risk of punishment has a direct and negative impact on criminal behaviour. Many studies found a significant correlation between the increase in cost and probability of conviction of offenders with the reduction of the degree of crime (Ehrlich, 1973; Witte, 1980; Viscusi, 1986; Grogger, 1991; Levitt, 1997; Corman & Mocan 2000). Also, according to the TRA and TPB, the higher the perception of negative consequences of illegal downloading of music, the smaller is the intention for the realization of such behaviour. Perceived risk is understood as the sacrifice or cost, which negatively affects the perceived value

of buying intention. Similarly, the higher risk associated with purchasing of products acquired through specific distribution channel, the smaller is the intention to use that channel. Therefore, illegal downloading of music may lead to personal risk, which includes the costs of criminal offence and perceived risk of the chosen distribution channel. Consistent with the TPB, perceived risk associated with downloading of music from the Internet increases uncertainty and reduces consumers' perceptions of control over buying and paying for the product, thus preventing greater use of the Internet as a potential distribution channel for buying the music. In the case of the Internet, buying consumers do not have complete control over their transactions, which may negatively affect the individual's decision to purchase products via the Internet.

H<sub>2</sub>: The higher the perceived personal risk of downloading, the more likely the consumer will buy music rather than download.

H<sub>3</sub>: The higher the perceived general Internet risk, the more likely the consumer will buy music.

Audio quality of the original CD is better than its electronically transferable compressed version. Digital compression decreases the quality of music in relation to a CD (Bhattacharjee, Gopal & Sanders, 2003). The same is true of any music legally downloaded from the Internet, and even more degradation is likely with an illegal downloading. The lower quality of illegally downloaded music may be seen as stealing something of a lesser value. So individuals' feelings about the quality/value of music on physical CD's and the compression quality of illegally downloaded music may be used to justify the individuals' decisions to illegally download music.

H<sub>4</sub>: The lower the copy of downloaded music, the more likely the consumer will buy rather than download music.

According to the TPB, beliefs about one's own competences to realize a particular behaviour and his perceived behavioural control determine whether the individual will realize a certain behaviour or not. For downloading the music from the Internet an individual needs a computer, access to the Internet, the right software and knowledge how to find, access, and download the music. Otherwise, the probability of downloading from the Internet is minimal.

H<sub>5</sub>: The better the internet access to songs, the more likely people will download rather than buy.

H<sub>6</sub>: The higher the subjects' Internet ability, the more likely the consumer will download.

In addition to social factors, the TRA and TPB include the inclination of the individual to certain behaviour. The conviction of an individual about what members of the reference group think of certain behaviour should have a direct impact on individual's subjective norms and the behaviour of the individual in accordance with expectations of reference group. Subjective norms should influence the inclination of the individual

to realize certain behaviour. If social expectations determine the realization of certain behaviour then we can expect that individuals will realize such behaviour. And on the contrary, if social expectations do not approve of certain behaviour, we can expect less willingness of individuals to realize it. Therefore, in the case of music downloading the individual attitude toward the music industry is essential. Successful musicians and music industry are often considered to be wealthy, with excessive profits and lifestyle. Many consumers believe that musicians earn extra money with live concerts and sales promotion, so that illegal downloading of few songs does not financially harm them (Levin, Dato-on & Rhee, 2004). On the basis of such beliefs consumers believe that piracy is an innocent crime (Chellappa & Shivendu, 2003).

H<sub>7</sub>: The more positive the subjects' attitude toward the music industry, the more likely the consumer will buy rather than download.

Social/ethical arguments regarding illegal downloading of intellectual property material are reflected in the individual decision whether is morally right or wrong to engage in such behaviour (Gopal et al., 2004, Taylor, 2004). According to the TRA and TPB, individual inclination toward a particular behaviour is influenced by individual's attitudes and beliefs about a particular behaviour and by subjective norms and expectations of the reference group regarding certain behaviour. Those who have never downloaded the music from the Internet perceive such behaviour as unethical and believe that such behaviour harms the music industry (Taylor, 2004). De Matos et al. (2007) found that consumers, who value honesty, probably will not opt to buy pirated products. However, in the research of Gallup Organization (2003), 83% of students stated that the free downloading of music is morally acceptable.

H<sub>8</sub>: The more unethical the subjects perceive downloading music, the more likely the consumer will buy rather than download.

## **Methodology**

The study was conducted with a sample of 253 students in Belgrade, Serbia. There were more women (63.25%) in the sample than men (28.85% responses are male). The survey was targeted towards students as online music copying and sharing phenomenon is rampant among students (Gopal, Bhattacharjee, Sanders, 2003). Students typically have little money and like to listen to music and are uncertain about the meanings of copyright, especially in the case of file sharing. Serbia was chosen both based on convenience and as a representative of an emerging market.

The survey instrument was pre-tested in order to evaluate the validity of the instrument and to test respondents' understanding. The instrument studies consumer attitudes towards online music. The respondents were asked to provide answers to questions and statements regarding their Internet buying, attitude toward music industry and toward music buying and downloading, their last purchase of music



through the Internet (or store) and to provide demographic information. Measures were adopted from previous research (McCorkle et al., 2012).

The dependent unit of analysis is a student with the experience of il/legal downloading of music from the Internet. The sample group is sufficiently diverse in terms of demographic, economic and social aspects.

TABLE 1. Sample characteristics

|                                  | Item  | Metric |
|----------------------------------|---|--------|
| <b>Size</b>                      | Number of respondents                       | 253    |
| <b>Gender</b>                    | Female                                      | 63.25% |
|                                  | Male  | 28.85% |
| <b>Income</b>                    | Proportion claiming above-average income    | 14.5%  |
|                                  | Proportion claiming below-average income    | 7.3%   |
| <b>Nationality</b>               | Portion declared Serbian nationality        | 95.50% |
| <b>Foreign countries visited</b> | Average number of foreign countries visited | 5      |
| <b>Place of living</b>           | Town over 100 000 citizens                  | 69.9%  |
|                                  | Town between 10 000 to 99 999 citizens      | 20.9   |
|                                  | Village (less than 10 000 citizens)         | 9.2    |
| <b>Age</b>                       | Average in years                            | 22.67  |
|                                  | Standard deviation                          | 1.66   |

It is important to notice that 27.9% of students reported that they bought a music at a store, TV or catalogue the last time they acquired it, 4.5% reported the Internet purchase, 34.6% copied the music CD or a file from someone, while 33% of students obtained the music from the Internet unpaid download (e.g., KaZaA, WinAMP).

Constructs identified in the conceptual model were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Constructs were derived from existing literature regarding consumer decision-making related to the theft of intellectual property (McCorkle et al., 2012). For the measure of the easy use of the Internet in buying on-line products, respondents were asked to report on their inclination toward the Internet buying using the Internet as one of possible distribution channels. Internet risk was conceptualized as consumer judgements on the risk associated with the purchase of the product acquired through a specific distribution channel (internet or store). Potential personal risk was operationalized as perception of individual's personal risk, which may have negative impact on perceived value of buying intention. The construct of the Internet ability was conceptualized as individual's ability to use the Internet, i.e., the knowledge how to find, access, and buy the desired product on the Internet. Attitude toward the music industry was operationalized as a person's inclination toward music industry and his/her view of the music industry treatment of consumers. Un/ethics of music downloading construct in the model refers to individual's perception of ethics of illegal music downloading. Product quality was conceptualized as consumer judgements on the quality of music downloaded from the Internet.

## Analysis and Results

We purified measurement scales using Exploratory factor analysis with varimax rotation, which identified seven components, with Eigen values exceeding 1 and factor loadings of 0.45 and above. Three items that did not adequately load onto corresponding factors (Easy use of the Internet, the Internet ability, Un/Ethics of music downloading), and one item that had strong loadings on more factors not only on Potential personal risk were duly dropped out from the analysis. The seven-factor solution explained a total of 75% of the variance. Cronbach's alpha coefficient ranged between 0.613 (Potential personal risk) and 0.893 (Quality of downloaded music), all above the accepted lower limit, indicating an adequate reliability of seven constructs. The results of factor analysis indicate that measurement scales exhibited satisfactory convergent and discriminant validity, as well as unidimensionality.

TABLE 2. Construct reliability measures

|   | Factor                             | Alpha ( $\alpha$ ) |
|---|------------------------------------|--------------------|
| 1 | Potential personal risk            | 0.61               |
| 2 | Un/Ethics of music downloading     | 0.73               |
| 3 | Attitude toward the music industry | 0.75               |
| 4 | Easy use of Internet               | 0.77               |
| 5 | Internet risk                      | 0.81               |
| 6 | Internet ability                   | 0.83               |
| 7 | Quality of downloaded music        | 0.89               |

Based on theoretical knowledge, in the model we assume that price/cost, which consumer realizes when buying music, also influences consumer decision regarding il/legal obtaining of music from the Internet. After conducting exploratory factor analysis, we created two new variables. Independent variable Market value/price of the music, which we gain with combining of estimated values of legally acquired (bought) music and estimated values

of music illegally acquired (downloading/stealing). Each respondent evaluated market value of music by answering the question which indicates consumers' cost for legally obtained music and by answering the question which indicates the value of illegally obtained music.

The dependent variable 'Legality Obtaining Music' was coded as a binary variable which characterizes consumers that legally obtained music and those that obtained music illegally. The method included 1 - Bought at a store, TV, or catalogue; 2 - Internet purchase (e.g., I-Tunes); 3 - Borrowed/copied CD or File from someone; 4 - the Internet unpaid download (e.g., Kazaa, WinAMP). Sources 1 and 2 indicate a legal way of obtaining music (buying), 3 and 4 - illegal ways (downloading/stealing).

Logistic regression was estimated with eight independent variables: Market value, Potential personal risk, Un/Ethics of music downloading, Attitude toward the music industry, Easy use of the Internet, the Internet risk, the Internet ability, Quality of downloaded music. The results of logistic regression analysis are shown in Table 3. Based on statistical analysis three hypotheses are not supported. Not supported hypotheses are related to perceived risk associated with the use of the Internet as a potential distribution channel for buying the music, and to potential personal risk associated with

negative consequences of illegal downloading of music. Contrary to our expectations,  $H_6$ , where we assumed that individual's knowledge how to use the Internet in order to find, access, and buy the desired product has impact on the buying probability, were not supported by the regression results, either. The results indicated that market value, quality of downloaded music, easy use of the Internet, inclination toward music industry and ethics of downloading music significantly affect the prediction of buying outcome at one-tailed significance level.

Perceived easy use of the Internet and inclination toward music industry has positive impact on the probability of individual decision to buy the music. The greater the possibility and easier the process of buying on the Internet, the greater is the probability of individual decision to buy the music on the Internet. Also, the more individuals believe in honesty of music industry, the greater will be their trust and thus the probability to decide to buy the music.

Market value/cost of music and quality of downloaded music has negative impact on the probability of individual decision to buy the music. The higher the market value thus the cost of music, the smaller is the probability of individual decision to buy the music. Also, the better the quality of downloaded music, the greater is the possibility of decision to download the music from the Internet. The results revealed the relationship between individual attitudes towards ethics of music downloading and the decision to buy music. The results indicate that the more the individual believes the music downloading from the Internet is ethical, the greater is the probability to decide to download and not to buy the music.

TABLE 3. Results of logistic regression – test of hypotheses

| Variable                             | Coefficient | Significance* | Hypothesis Tested | Result        |
|--------------------------------------|-------------|---------------|-------------------|---------------|
| Constant                             | -547        | 0             | N/A               |               |
| Market value of the music            | 0           | 0.01          | $H_1$             | supported     |
| Potential risk                       | 0.06        | 0.2           | $H_2$             | not supported |
| Internet risk                        | -0.09       | 0.18          | $H_3$             | not supported |
| Quality                              | -0.36       | 0.03          | $H_4$             | supported     |
| Ease of Internet Use                 | 0.37        | 0.02          | $H_5$             | supported     |
| Internet ability                     | 0.1         | 0.17          | $H_6$             | not supported |
| Attitude toward music industry       | 0.34        | 0.04          | $H_7$             | supported     |
| Ethics of downloading                | -0.33       | 0.04          | $H_8$             | supported     |
| Model Chi-square = 30.735; d.f. = 8  |             |               |                   |               |
| 2 Log-likelihood = 126.983           |             |               |                   |               |
| Percent correctly classified = 71.7% |             |               |                   |               |

\* One-tailed significance levels

The overall model produced by the logistic regression is significant (at  $p=0.004$ ), with a Chi-square of 30.73 and 8 degrees of freedom (see Table 3). We also assessed the model's predictive accuracy. Overall, a total of more than 71% of cases were correctly classified in the model. The significant Chi-square value and high correct classification percentage indicated the perfect fit of the model in explaining the relationship between independent and dependent variables. Multicollinearity of independent variables was eliminated with the use of factor analysis and Varimax rotation method, which excludes factor correlations. To estimate the power of the model we computed *Nagelkerke's* R-square of 0.309, which indicates that 30.9% of total variance in the dependent variable was explained by independent variables. As a whole, the results supported the relevance of five of eight constructs identified in the model.

## Discussion and Implications

Analysis of our model showed that music companies in emerging markets may expect that consumers' decision to il/legally obtain copyrighted music is influenced largely by economic factors, like price and quality of downloaded music, psychological and social factors, as perception of easy use of the Internet for on-line music buying, inclination toward music industry and perception of music downloading as an ethical behaviour.

The results indicated significant impact of price on consumer buying decision, who can in current circumstances download music from the Internet with impunity, to be more price-sensitive. Therefore, music companies need to find a way how to decrease the differential cost of music illegally acquired from the Internet and that acquired legally. At the same time, it is necessary to take into account the fact that most of households in emerging markets have relatively low disposable income to devote to culture and entertainment. Music industry should develop diverse customized pricing models for different customer segments in order to increase the attractiveness of a legal offer together with ethical incentives reflected through the education of potential customers about the benefits of buying and consequences of the infringement of copyright law. With the use of TRA it is possible to establish, through normative social factors, relationship between behavioural intention and general beliefs, and members of reference group that are the key factor in influencing the change of behaviour. Therefore, the aim of marketing communication in emerging markets should be the increase of awareness about negative consequences of infringement of copyright law targeted to young people, as the most important consumer segment for music industry, supported by effective law enforcement.

Contrary to our expectations, statistical analysis showed no significant effect of risk on music buying. The absence of prosecution risk can be partially attributed to invisibility of music downloading, which hides the identity of individual and gives him a sense of invisibility. Partially, it can be the result of ineffective fines, which have remained just a threat on the paper except in developing markets – and even then limited. Convincing law enforcement to take digital piracy seriously in emerging markets continues to be problematic. In this market, and most other emerging markets, prosecuting intellectual

property theft is not a high priority of the government. Thus the lack of perceived risk has no impact on behaviour.

Analysis did not give any support to the impact of perception of the Internet risk, e.g., the risk of choosing the Internet as a possible distribution channel, on the consumers' buying decision. This may be understood as many consumers do not associate any risk with the Internet as a channel for buying a product. Music industry may understand this as a sign of Internet sales acceptance by consumers and as a new effective distribution channel for the reach of consumers and therefore, should stimulate the use of the Internet as a music sales channel, while the replacement of traditional stores with the Internet sale should be understood as a place of added value creation.

Based on analysis results we may conclude that consumers in emerging markets value high quality of music, which can legally establish the Internet services offer as its added value and thus affect the consumer decision to buy the music. The possibility to sample the music before purchasing it can facilitate the buying decision, especially, if we take into account consumers' bad experiences with pirated music editions present on the market in the past. This way music industry could increase the quality perception and at the same time decrease the risk of consumer that music he intends to buy does not match his expectations. With the guarantee of quality and safety of music downloading it could influence the decrease of the risk to get a computer virus. As a result, individual's perceived behavioural control would be higher and the number of factors that could prevent realization of buying behaviour reduced.

The results indicated that consumers perceive the Internet buying as an easy and pleasant way of buying. If we take into account that more and more households have computers and the Internet access, and the use of broadband Internet access steadily increases, resulting in faster and higher quality data transfer, we may expect that in the future consumers will be likely to decide to purchase music over the Internet if music companies establish e-business models with regard to consumer expectations, whose success will be determined by easy and efficient searching of the required content, easy payment and the guarantee of personal data safety, offering wide range of digital audio content and additional services, such as information about the content, up-to-date information about concerts, new songs and charts, and community features, which can help to support consumer needs to communicate with others and to choose right audio content, or to exchange data.

TPB indicates that the decision to realize particular behaviour is influenced by the expectations of one's own competences, thus we assumed that knowledge how to find, access, and buy music affects the probability of downloading the music from the Internet. Contrary to our expectations, the analysis did not show significant impact of the Internet ability on the consumer buying decision. For students, both in emerging and developing markets, the era of differential ability to access materials via the Internet is largely disappeared. In essence, nearly all consumers in this age/education group have significant ability to both access and use the Internet to obtain information and products that they wish. This lends further support for both the movie and music industries to fully develop this channel for legal purchases.

From TRA we know that the person's beliefs about what members of reference group think about particular behaviour have a direct impact on individual's subjective norms and his or her behaviour according to expectations of reference groups. In the case of music industry, the reference group significantly dictates popularity of music and with its attitudes and actions affects the perception of acceptability of free music downloading and thus significantly influences the person's behavioural intention. Our analysis confirmed that inclination to music industry has a positive impact on decision of Serbian consumer to buy the music. Therefore, music companies should establish effective marketing communication that will create more positive attitude of consumers toward music industry, which may lead to higher consumers' inclination towards buying the music.

It is unsurprising that a high correlation exists between consumer's attitudes about ethics of downloading the music from the Internet and decision to steal. Thus, music piracy could be reduced by raising the awareness about consequences of such behaviour. Hence, it would be necessary for music industry to affect consumer's attitudes through marketing campaigns and education initiatives with regard to ethics of on-line music downloading. It is necessary to take into account the basic principles of TRA that the message must efficiently direct consumers' attention to adequate motivation and therefore give acceptable reason for change of pirated behaviour.

Communication with customers could be based on the following arguments: music industry may emphasize negative personal consequences of music piracy, negative consequences of individual members of music industry (e.g., of musicians) or unethics of music piracy. Emphasizing of negative personal consequences should lead to strengthening of the relationship between personal behavioural consequences and inclination toward music industry. Similarly, emphasizing the negative consequences of piracy for individual members of music industry should strengthen the relationship between subjective norms and intentions. Emphasizing ethics of music piracy should stimulate ethical predispositions of the individual and strengthen the relationship between ethical predispositions and attitudes. The result of the mentioned relationship strengthening should be the decrease in the degree of readiness to realize pirated behaviour. In order to reach potential consumers it is essential to use different media and celebrities associated with the reference group, while efficient message requires a combination of anti-piracy arguments. For efficient marketing communication music industry will have to be able to define customer segments according to their inclination to use the Internet, and requirements about the quality, type and the price of music.

The results of this study differ significantly from relatively similar studies performed in the United States in several aspects. Typically, studies in the US have found Risk to be a significant determinant of the purchase or pirate decision (McCorkle et al., 2012; Pryor et al., 2008). In addition, the McCorkle et al. study found the Internet ability (i.e., WebUse H4) to have a significant impact. We propose that emerging markets have very limited risk involved due to the near complete lack of enforcement of intellectual property rights. In addition, given the differences in sample times, perhaps the Internet

ability is becoming so common, at such a high level among this group that the effect over time is no longer relevant. That is to say, that all students have become so proficient at finding and downloading materials, the effect has disappeared. Also of note are the ordinal differences in effects between this study and previous ones in advanced economies. Risk and web ability were ranked as the two highest effects in the studies above, but are not significant here. Quality and ethical attitude were the next highest in previous studies, which these results parallel.

## **Recommendations for Future Research**

The findings of this study provide insight into consumer pirated behaviour and customer decisions with respect to intellectual property theft on the Serbian market. However, the interpretation of findings needs to be considered within the context of the limitation in this research. The former includes the small size and diversity of the sample as it contains only students of similar age and education. Also, the survey was conducted only in one city so the results cannot be generalized on the country level. While the Serbian market is typical of many emerging markets, it also has idiosyncrasies that need to be taken into account. Research on students' behaviour from other countries could discover whether the correlations between individual factors and buying decisions found with students in Serbia also apply to students in other countries.

Insight into the behavioural dynamic of music piracy would lead to more efficient educational and legislative campaigns in order to educate Serbian consumers about copyright and stimulate the change of attitudes regarding acceptability of free on-line music downloading. Considering the importance of attitudes in prediction of behavioural intention to buy the music, music industry should offer information that affects strengthening of attitudes toward buying decision with emphasizing the benefits of music buying. Music industry could influence some factors through the ethical dimension of behaviour. In cooperation with some state agencies it should implement measures to increase awareness about the nature of intellectual property. This could be done with the help of marketing and educational initiatives that would change consumers' attitudes about the ethics of music downloading, establish more positive attitude toward music industry, raise the understanding of music downloading as a criminal act and raise the perception of the probability of discovery as well as the imposition of a criminal conviction. Educational initiatives should be introduced in educational programmes of primary schools since it is hard to stimulate the change of ethical attitudes of elders. Increased risk of recognition and detection of copyright law infringement would be a reflection of government commitment to more effective implementation of copyright law that has to be supported by fines, which correspond to the level of expected benefits of copyright law infringement. Effective campaigns against piracy would also be a sign to present and future investors that Serbia is ready to ensure security and stability of economy, which would facilitate the integration of Serbia into European and world organizations.

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