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Master in Management Program

UNDERSTANDING THE FACTORS INFLUENCING CONSUMER DIGITAL PIRACY BEHAVIOR

Master's Thesis by the 2nd year student

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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Зайцева Юлия Михайловна, студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему Understanding the factors influencing consumer digital piracy behavior», представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата. Все прямые заимствования из печатных и электронных источников, а также из защищенных ранее выпускных квалификационных работ, кандидатских и докторских диссертаций имеют соответствующие ссылки.

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АННОТАЦИЯ

Автор	Зайцева Юлия Михайловна
Название магистерской диссертации	Определение факторов, влияющих на цифровое пиратство конечных пользователей
Факультет	Высшая Школа Менеджмента
Направление подготовки	Менеджмент
Год	2016
Научный руководитель	Смирнова Мария Михайловна
Описание цели, задач и основных результатов	<p>Целью данной магистерской диссертации является определение факторов, влияющих на цифровое пиратство среди конечных пользователей в России. Следующие задачи были поставлены, чтобы добиться данной цели:</p> <ul style="list-style-type: none">- Определить на основе обзора литературы существующие подходы к проблеме исследования факторов, влияющих на цифровое пиратство- Провести исследование факторов, влияющих на цифровое пиратство в России, используя одну или комбинацию из нескольких рассмотренных теоретических моделей- На основе построенной модели выделить факторы, влияющие на книжное цифровое пиратство в России- Разработать рекомендации по борьбе с цифровым пиратством на книжном рынке России <p>В результате исследования, проведённого на основе Социально-когнитивной Теории и Модели принятия Технологии, были определены факторы, которые влияют на книжное цифровое пиратство в России. Данные факторы включают в себя ожидания потребителей относительно результатов скачивания, личную возможность осуществить скачивание и непосредственное использование электронных книг. Набор этих факторов и связей между ними позволил разработать ряд рекомендаций по борьбе с книжным интернет-пиратством. Данные рекомендации предлагают технологические, социальные и бизнес-подходы к решению проблемы пиратства.</p>
Ключевые слова	Цифровое пиратство, интернет-пиратство, электронное пиратство, социально-когнитивная теория

ABSTRACT

Master Student's Name	Iuliia Zaitceva
Master Thesis Title	Understanding the factors influencing consumer digital piracy behavior
Faculty	Graduate School of Management
Main field of study	Management
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Academic Advisor's Name	Maria M. Smirnova
Description of the goal, tasks and main results	<p>The goal of this paper is to identify factors that influence consumer digital piracy behavior in Russia. To achieve this goal, a set of tasks was introduced:</p> <ul style="list-style-type: none"> - To identify the existing approaches to the research of the digital piracy factors - To conduct the research of the e-book piracy factors in Russia, employing one of the overviewed models - To identify the factors influencing the intention to download e-books in Russia - To develop the recommendations to reduce the piracy level in the industries associated with the books trade and publishing <p>As a result of the research, conducted on the basis of the Social Cognitive Theory and the Technology Acceptance Model, the factors that influence books digital piracy consumer behavior in Russia were identified. These factors include the expected outcomes of the downloading behavior performance, the e-books usage and the ability to perform the downloading behavior. The set of this factors allowed to develop the recommendations about the ways to reduce the e-book digital piracy level in Russia. The recommendations propose technological, social and business approaches that could contribute to the solution of the digital piracy problem</p>
Keywords	Digital piracy, e-books, piracy, social cognitive theory

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Introduction

The Internet gives a lot of opportunities for companies, but in the same time it imposes new challenges. Currently, digital piracy is an important topic of concern for the producers of different digital goods. Software publishers, music, movies and book publishing industries, even some TV-channels face this problem. It not only decreases their profits and make it more difficult for them to survive, but also provides less incentives to invest in the development of the new products.

The exact data on pirated products is difficult to find, because there is no central canal for the modern sharing methods. However, the estimations are quite impressive. The average global piracy rate for software only is 42%. The indicators in emerging economies are more than 50%. For instance, in Russia pirated software accounts for 68%. While the developed countries have lower piracy rates (US with 19%, France with 37%, UK with 25%) the real losses are bigger.

The governments of the many countries try to fight with this problem using the legal mechanisms. However, as it can be seen from the piracy rates, they cannot completely solve the problem. In the emerging markets, the business environment for the companies is even more complex: the copyright protection mechanisms are not yet well developed. While a government implements new laws and measures, the pirates find the ways to overcome new obstacles.

Russia is one of the examples of such countries. Recently Russian lawmakers introduced a set of anti-piracy laws that were supposed to reduce the number of the sites that illegally distribute the digital goods. This is, however, did not lead to expected results. The Russian presidents' advisor on the Internet affairs German Klimenko described the decision of the eternal blocking of different torrent sites in Russia as "a bad comedy"¹.

Indeed, it is not a problem for the pirates to launch a new site, to use the server of a country that does not have the relevant laws or to use the mirror system. The most famous example is the Pirate Bay site. After many law processes and blockings that started more than five years ago, the site still operates.

Like this, the RuTracker site, the biggest piracy site of the Russian Internet, was blocked according to the court decision, but was almost immediately recreated on the other domain. What is more amazing about the situation is that just before the blocking the RuTracker conducted a

¹ Source: <https://news.mail.ru/society/24610461/?frommail=1>

survey among its user that asked whether they should delete the shares that were connected with the complaints of the copyright owners or just move to another domain.

Thus, it is a challenge for the companies to operate in the environment like this. And while they cannot change legal system, they may try to answer the challenges using the means they have.

In order to find the solution to the problem one should know the nature of the problem and the reasons behind it. In the case with the digital piracy, it is crucial to understand what factors influence this behavior. The understanding of the social and psychological models underlying the digital piracy seems to be a prerequisite for the development of the marketing communications strategy that would persuade consumers to stop or at least diminish the amount of the pirated products.

The main goal of this master thesis is to identify the factors that influence consumer digital piracy behavior in Russia.

This goal is identified by the following tasks that are solved in the thesis:

- To identify the existing approaches to the research of the digital piracy factors
- To conduct the research of the e-book piracy factors in Russia, employing one of the overviewed models
- To identify the factors influencing the intention to download e-books in Russia
- To develop the recommendations to reduce the piracy in the industries associated with the books trade and publishing

In order to fulfill the tasks the following instruments will be used:

- To create an overview of the studies on digital piracy factors and to classify them, the analysis of information from scientific literature and periodic, analysis of Internet data, including the web sites, will be used
- To analyze the results of the conducted research and identify the factors influencing the digital piracy in Russia, the statistical software program IBM SPSS will be used; the structural equation modeling procedures will be done in SPSS AMOS program
- To find the necessary information the following sources will be used: information databases such as Emerald, Springer, ResearchGate, Sage, Elsevier and EBSCO. The academic search engines sources like Google Scholar and Web of Science will also be applied. Apart from them, any relevant materials and newspapers' articles about the digital piracy will be taken into consideration.

- Apart from the electronic database the printed materials such as books and scientific journals will be used. They can be accessed in the GSOM library or in the library of the Saint Petersburg State University.

Thus, the structure of the master thesis will include the following points:

1. The Literature overview
2. The model and methodology of the empirical research
3. The results analysis and managerial implications
4. Conclusion

The presented structure will make it possible to achieve the goal of the research and to clearly present the information obtained in the process of the research.

1. THE DIGITAL PIRACY AND THE RESEARCH OF ITS FACTORS

1.1 The digital piracy definitions and the objects of the research

The term “digital piracy” is a synonym to the illegal file-sharing. In a broad sense the digital piracy can be defined as the unauthorized reproduction, use or diffusion of copyrighted work (Belleflamme, 2010). This definition highlights the difference between the reproduction, use and the diffusion of the digital product, which is important, because although all of them can be called piracy, the persons behind them are not always the same. It is particularly important to distinguish the commercial piracy from the end-user piracy. The commercial pirates usually operate the sites that provide a platform for the large-scale illegal reproduction and distribution of the digital products. They generate profits mainly due to the advertising. The end-user pirates, on the contrary, do not generate any profits at all. They download and use the digital products for their own needs and sometimes share them or upload them for free for other users.

The researches concerning the digital piracy come from different disciplinary areas. Most of them, however, belong to business literature, such as information systems, marketing and management (fig. 1.1)

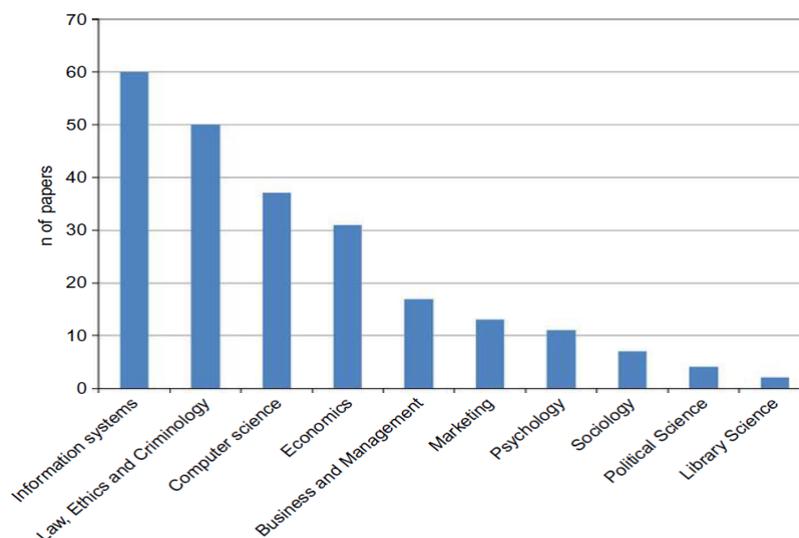


Fig. 1.1 The areas of the digital piracy research

Source: Goode, S. (2012). Initial findings of a gap analysis of the digital piracy literature: six undiscovered countries. *Journal of Research in Interactive marketing*, Vol. 6, №4, pp. 238 – 259. Retrieved from <http://sciencedirect.com>

Another thing that differentiates the researches of the digital piracy area is different types of the pirated products. The main pirated products are the software, the video games, music and

books. Another one is TV translations, particularly the ones of the sport events. The question arises if it is necessary to specify a type of product in any research related to the digital piracy topic.

Some researchers use focus only on specific product, while the others take into account several at a time. Malin and Fowers (2009) used music and movies in their piracy exploration. Ramayah et al. (2008) did not specify the product at all, addressing the internet piracy in general. However, it is more common when different researches focus on different types of the pirated products. Software is probably one of the most common objects for the research in the area of the digital piracy (Nill, 2009; Moores et al., 2009; Suki et al., 2011; etc). Music (Brown, 2013; Papadopoulos, 2003; etc) and movies (Jacobs et al., 2012; Taylor et al., 2009) are another popular subject in the digital piracy articles. On the contrary, e-books and TV-translations are not so popular topic of the digital piracy research among scholars.

Video game piracy does not get much attention from scholars too. B. Depoorter (2014) explains it by the fact that it is not so widespread as the other types of piracy mainly because the massive change of the gaming platform from personal computers to consoles like PlayStation and XBox took place and significantly decreased the piracy negative effects. Another reason is that the main consumers of the video games now are the young professionals who are more concerned about the time that would be required to get through all the protection measures when dealing with pirated product, than about spending some money on the legal purchase of the game.

Aiming to answer the question whether it is necessary to separate the products in the researches, Cox and Collins (2014) conducted a research in order to compare the types of the music and movies piracy behavior. In other words, they attempted to differentiate between the factors motivating it. They found out that although many common characteristics definitely exist, there are also significant differences. First, it is the difference in the socio-demographic, such as gender, income and the city dwelling, characteristics of the consumers of the pirated material. Movie downloaders are more likely to be males and have higher income than music pirates. Second, pirated movies are a worse substitute to the legal product than pirated music. This means that the movie consumers will less likely reduce the paid consumption when they pirate than music consumers. Third, the treatment for the pirates should be different: while movie pirates are more inclined to believe that their actions harm the producers, it is harder to persuade the music consumers that it is true. Finally, public awareness campaigns that highlight the legal punishment might be less effective for movie pirates, since they usually do not believe that this punishment can be applied to them (unlike music pirates). Therefore, for the more effective practical

implications, it is advisable for the scholars to differentiate among the pirated products and analyze them separately.

One particular type of the studies among all those that are focused on the digital piracy issues is about the exploration of the factors that influence digital piracy. Defining factors is important, because it helps to understand the problem of illegal downloading and get insights about possible ways to solve it.

The studies of the factors that influence the digital piracy aim to answer the question what makes people to engage in the digital piracy. While it is clear that the owners of the file-sharing sites have a commercial interest, the motives of the end-user pirates are more complex (Belleflamme, 2010). Usually, they are law-abiding citizens, so it is rather surprising to see such a large amount of pirated products that they possess. Another question that arises is what makes them not only download the files, but also participate in the uploading and sharing processes? While the lack of law clarity and the cost-benefits ratio are to blame, they are not the only factors of digital piracy.

There are definitely more than one factor influencing the piracy behavior and this is the reason why piracy behavior has been studied from a variety of perspectives. For the past thirty years, a significant amount of research papers that attempted to identify and examine the determinants of digital piracy were published. It is understandable since there are many factors that could become a trigger for the digital piracy.

One may distinguish two big groups of studies on this topic: cross-national studies and demand-type models (Jackman and Lorde, 2014). The cross-national studies were more prevalent in earlier years of the research, while the demand-based models emerged later. Each type of study explores particular factors that might have influence on the digital piracy. Different approaches and models that were utilized in the previous researches will be discussed below.

1.2 Cross-national studies

Cross-national studies is a group of researches that focuses on the national differences in the piracy rates. Therefore, these studies usually explore the external factors rather than internal consumers' motives to engage into illegal downloading.

In their turn, these external factors can be divided into five general dimensions:

- Economic factors
- Institutional or legal factors

- Cultural factors
- Demographic factors
- Technological factors

In some cases, all the dimensions are covered in one study, while in the others a particular research focuses only on one set of factors.

1.2.1 Institutional and legal factors

Institutional factors are the ones that relate to the legislation in regard to the piracy. Burke (1996) investigated whether the international copyright legislation is effective to confront the piracy. He found out that the factor of its existence was not enough to significantly reduce music counterfeiting. On the contrary, the economic development was identified as a main factor of effective dealing with the piracy. However, it should be taken into consideration that these findings were related not to the digital piracy, but rather to the counterfeiting one.

Goel et al. (2009) took institutional factors more broadly: the cross-national study was focused on the influence on software piracy by the degree of the political freedom, degree of economic freedom, the level of corruption and the established legal system. The results, based on the 2004 year survey, demonstrated that the greater political freedom is, the lesser level of piracy is. This finding is consistent with the ones of the other studies and is explained by the authors in a way that the pirate might be afraid of being exposed in the press, which is more likely when this press is free. The second finding contradicted previous studies, showing that the degree of economic freedom positively influences the level of piracy. The reason for this might be that government interference in the economy is low, which is the reason why fewer actions are undertaken to legally prevent piracy. The corruption rate also positively influences piracy, while the Common law system does not affect piracy much, which might be because the traditional legal systems are not yet adopted to answer the challenges posed by the soft technologies.

1.2.2 Economic and technology factors

Economic factors usually focus on the cost-benefit structure of the consequences of the illegal files downloading or price composition of the product and income of the potential consumers. To assess their influence on the piracy behavior scholars use different variables such as, for example, per capita GDP, product price, average income and other economic indicators. Technology factors are generally explored altogether with economic ones and include, among others, the internet speed of downloading and the ability of people to use particular features of the computers.

The study of Papadopoulos (2003) supports the insight of Burke (1996) that the economic development influences the level of piracy. Using the affordability index (the ratio of the official product price to average manufacturing wage per hour) and the balance of trade in sound recording products, as well as the piracy data from 64 countries, he came to the conclusion that there was a significant relationship between the piracy market share of music and the price-earnings ratio.

The results of the Shin et al.' (2004) analysis, based on the year 1996 data, also demonstrated the influence of the economic factors on piracy: the per capita GDP was a significant predictor of the piracy rate. However, Bagchi (2006) claimed that with the time this factor had lost its predictive power and was no longer a determinant of the digital piracy in the year 2006.

H. Wulandari (2014) performed another research that was concentrated on the exploration of the economic and technology factors. The research was based on the expected utility theory and the technology acceptance model. The hypothesis whether economic and technology factors are the ones of some factors that affect digital piracy sustainability was tested. Unlike Bagchi (2006) the scholar used not the one indicator of the economy overall, but the income of the respondents, the price of the product and the value of this product for the respondents. As for technological factors, availability of the Internet network, access speed, online communities, availability of file-sharing sites indicators were used to understand them. The results of the research confirmed the initial hypothesis about the price and income as well as the internet network availability, speed of the internet and the file-sharing site being the factors of the digital piracy.

Some studies that explore the technological factors of the digital piracy use for this purpose the Technology Acceptance Model (TAM). This model was created to explain the usage of the new technologies and is related to the perceived easiness to exploit a particular technology and its usefulness for an individual. In terms of the digital piracy studies, this model is usually used in combination with other models and theories (Camarero et al., 2014)

1.2.3. Cultural factors

Cultural effects were also a central problem in several studies devoted to the illegal downloading phenomena. Shore et al. (2001), aiming to shed more light on the cultural dimension of the piracy, conducted the research to understand why ethical behavior may vary among different cultures. They collected the data from four countries: USA, New Zealand, Hong Kong and Pakistan. The main conclusion from this study was the suggestion that the culture is strongly tied to the software piracy and although the culture itself cannot explain it, it might be a significant intervening variable.

Shin et al. (2004) examined a culture's influence on the software piracy rate using the Hofstede collectivism index. They found a significant positive relationship between people's collectivism and the piracy rate of the country. Husted (2000), who based the research on the secondary data from 39 countries, came to the same conclusion.

Like Shin (2004), Yoo and Sanders (2014) employed the Hofstede Model of cultural differences in their study and examined not only collectivism – individualism index, but also other its elements of it in the attempt to explain piracy rates differences between Korea and Vietnam. These two countries share the same level of collectivism and masculinity, but their Power Distance and Uncertainty Avoidance Indexes are distinct. These indexes were found to be very influential in determining the digital piracy factors.

1.3 Demand-type models

Unlike cross-national studies demand-type type models focus on individual level of the analysis, dealing with personal or internal motives of each particular individual (Jackman and Lorde, 2014). There are many theories and models that were applied in these studies, but all of them has a particular variable in its center. Based on this criterion, three groups can be identified: the studies based on expectations, the ones that employ theories of ethical decision-making and, finally, attitude-based approaches. The models are constantly being improved and expanded. Apart from that, some scholars use mixed models that are hybrids from different groups.

1.3.1. Expectations based models

Expectations-based models assume that the expectations of the outcome of the illegal downloading heavily influences the behavior of the one who is going to commit it. Below the deterrence theory, social cognitive theory and the neutralization theories are explained in the context of digital piracy.

Deterrence theory

The deterrence theory originates from criminology and has been widely used by the scholars in an attempt to explain the phenomena of the digital piracy. The key suggestion of the deterrence theory is that the people obey the law because they have particular expectations about its consequences and are scared by the punishment perspectives.

Higgins et al. (2005) applied the criminology version of the deterrence theory to explain the phenomena of the software piracy. To do this, he used the likelihood of the performing the piracy behavior in tested circumstances as the dependent variable. The level of self-control, extra-

legal sanctions (social and self-disapproval) and additional control measures as explaining variables were added to classical certainty and severity of punishment. In the research, the levels of certainty and severity were experimentally changed to check the students' responses for it. As the result, the certainty of the punishment as well as shame and family disapproval negatively influenced the software piracy intentions, while the severity was not an important predictor.

Social cognitive theory

Another important model that could be classified as an expectations-based theory is Social Cognitive Theory (SCT) that is often used in the communications discipline. This theory relies on the assumption that the behavior of an individual can be partly explained by its expected outcomes, which in turn may be learnt by an individual's own experience or by the observations of the consequences of other people actions.

The pioneer of the SCT theory application to the piracy behavior exploration was Robert LaRose who applied it in the several researches. For instance, one of them (LaRose et al., 2005) was based on SCT that featured the outcomes of the pirating behavior (social, economic and novelty-seeking), self-efficacy (individual confidence in own ability to download movies), deficient self-regulation (the extent to which the behavior is out of the individual's control or the role of downloading in everyday life) and moral acceptability of the downloading.

In the later research (LaRose, 2007) the model was modified: the habit strength component was added, and the expected outcomes included not only economic, novelty seeking and social options, but also activity, self-reactive and status incentive ones. As a result of that research it was concluded that the expected outcomes of piracy and deficient self-regulation are, indeed, the predictors of intentions to download music files. Besides, the intentions to download did not have a direct relationship to the official music purchases.

Apart from this, the authors compared the SCT approach to the TPB one. The first one was found to be superior in the aspect of normative influence: the descriptive and prescriptive norms had an impact on deficient self-regulation, but were not directly influencing the behavioral intentions of an individual.

More recently R. Jacobs and A. Heuveiman (2012) also applied the SCT model to the digital piracy research, having included their own modifications. They changed the dependent variable to the number of downloads in order to make it quantitative. Apart from this, they added a new predictive variable, the knowledge of laws. Since their study was focused on movies downloads and not on music, as the LaRose's one did, they modified the novelty-seeking outcome

variable that now was composed of the two: novelty compulsion (drive to see new and different movies) and completionism (the desire to see the large number of films). The model of the research is presented in Figure 1.2.

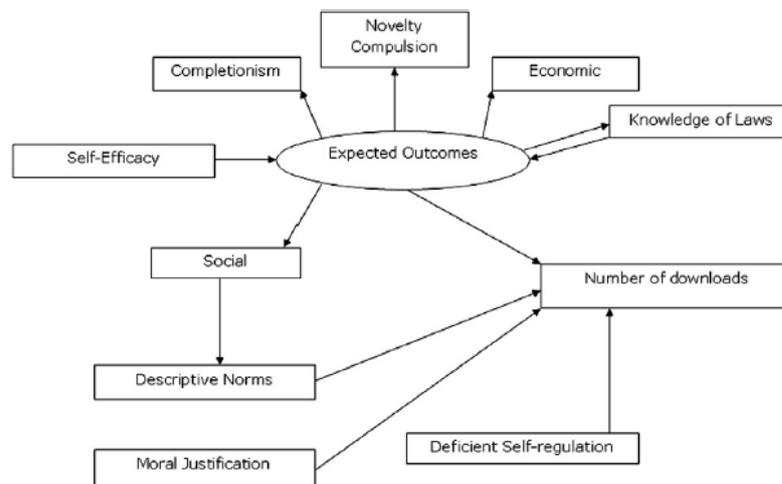


Fig.1.2 The extended Social Cognitive Theory model

Source: Jacobs, R.S., Heuvelman, A., Tan, M., & Peters, O. (2012). Digital movie piracy: a perspective on downloading behavior through social cognitive theory. *Computers in Human Behavior*, Vol. 28, pp. 958 – 967. Retrieved from <http://sciencedirect.com>

As a result of the research the new model was proposed. The level of individual's piracy behavior is influenced by how deeply this behavior is already embedded in the person's daily routine, by descriptive norms and partly by deficient self-regulation, but not by self-efficacy, law knowledge or moral justification. Completionism and novelty compulsion were more commonly indicated than the expected economic outcomes, which means that if the person did not pirate the movie, he would not have necessary paid to watch it, he only pirated it because of the desire to see a lot of movies.

The differences from the results of the LaRose work (2007) were attributed to the changing environment of the Internet culture: the Internet itself is now faster and easier to use for an average person. Particularly, this may be the reason why the role self-efficacy and moral justification as factors now decreases.

Neutralization theory

Another theory that can be used to conduct a research of the digital piracy factors is the neutralization theory. The neutralization techniques are used by individuals to justify the criminal actions, which in the present case are piracy. M. Siponen (2012) studied the following seven techniques, based both on the neutralization and deterrence theories, to see if they are used by people to justify their piracy actions. The elements of the neutralization theory were following:

- Condemn the condemners. It happens when offenders blame those who oppose their behavior
- The denial of injury. It includes the denial of the harmful consequences of the actions
- The metaphor of the ledger happens when an individual view his/her law criminal behavior in comparison with the law-abiding behavior
- The appeal to higher loyalties. Occurs when a smaller group has standards different from the society and the individual wants to fit.
- The defense of necessities when the individual makes himself/herself believe that the undertaken actions were unavoidable
- The denial of responsibility. The individual explains the actions in a way that free them from responsibility
- Denial of the victim, when the victim is abstract

The elements of the deterrence theory that had been adopted were shame, formal sanctions and moral beliefs. All the elements were tested on whether they in the end influence the piracy intentions.

The findings of this research are that appeal to higher loyalties, the condemnation of condemners not only influenced the decision to pirate, but were also a predictor to it. The effect of moral beliefs and the effect of shame also had a significant influence on the individual's intentions. The other components of the model did not seem to be important in predicting piracy behavior.

Thus, according to the results of this research, shame and an appeal morality are main deterrents that can be used to reduce the level of piracy.

1.3.2 Ethics based models

Ethical decision making has been modeled both in psychological and business research and this is also one big group of the studies of digital piracy factors on the individual level. The factors that they are aiming to explain are connected with the ethical perspective on the illegal downloading. It is understandable why they exist. Ethical decision is the one that is both legally and morally accepted to the broader community. Thus, it is possible to look at the piracy problem through the prism of ethical considerations.

The consideration of the digital piracy assumes that a pirating individual sees his or her behavior immoral and would feel guilt after committing illegal downloading. This is what neutralization techniques that were described before rely on. However, it is not always the case. Many individuals do not perceive software piracy as an ethical problem, which is why the

relationship among downloading, ethics, and the law is somewhat unclear. Therefore, some scholars tried to shed more light on this relationship.

Gopal (2001) researched the importance of the ethical constructs in the music piracy. He found the strong relationship between the ethical index and the music piracy. However, there are rather weak relationship with the justice construct.

Moral development and moral judgement

Level of Moral development is an important variable of the piracy prediction in the studies applying theories of the ethical decision making. Generally, it is included in order to estimate the ability to make moral judgments. The general hypothesis is that the higher the level of an individual's moral judgment, the less likely he or she will engage in the piracy activities.

The model was proposed by Kohlberg (1969) identified the three level of the moral development: The pre-conventional level, conventional level and post-conventional one. The pre-conventional level usually characterize children and immature adults. Its first stage has an internal focus of avoiding punishment while the second was on achieving self-gratification. The conventional level, typical of adults, is characterized by an individual being influenced by the approval or disapproval of people around. A post-conventional level that is reached only by some adults is about the focus of the individuals on the universal ethical principles and the society in general.

Rest (1979) developed an alternative model of moral development, having taken Kohlberg's theory as a base. His Defining Issued test was often used as an instrument for moral judgment measurement. In the piracy factors research Logsdon et al. (1994) used it to explore the students' attitudes toward the software piracy. There was no strong positive relationship found and it was explained by the fact that the sample was composed of students, not working adults.

The equity theory

The equity theory is one of the justice theories. It was developed in 1969 by S. Adams and has been used since then in a variety of the disciplines, including marketing and the information systems. This theory describes an individual's focus on the fairness of the resources distribution. Hence, the main variables of the model are outcomes and inputs of each participant. The more unequal an individual sees the distribution, the more distress he or she will feel and will be more motivated to reduce the inequity.

The study results of Glass and Wood (1996) supported equity theory predictions of the individuals' intentions to participate in software piracy given specific situational factors. However, their research was focused on the provider of the pirated software, not on the consumers. Later, Douglas et al (2007) focused on consumers and used the following model of software piracy, based on the equity theory (Fig. 1.3):

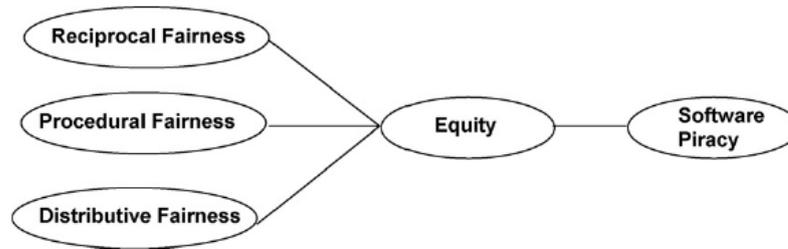


Fig.1.3 The equity model of software piracy

Source: Douglas, D., Cronan, T., & Behel, J. (2007). Equity perceptions as a deterrent to software piracy behavior. *Information and Management*, 44 (5) pp. 503-512. Retrieved from <http://sciencedirect.com>

Here the reciprocal fairness is created in the process of the buying or pirating software, the procedural fairness involves the relationship between the producer and the consumer, while the distributive fairness is about the selling conditions for different groups of people.

Douglas (2007) used different questions to measure these three types of fairness and measured whether they influenced the equity in software piracy. Reciprocal fairness and the procedural fairness, indeed, were found to be its significant determinants. The distributive fairness, on the other hand, was not. A probable explanation for it might be that the sample presented in the study was composed of college students. They profit the differences in the distribution, because as students they often get discounts for software products. So, the equity perceptions are among the determinants of the piracy behavior, and the equity theory is often used in the studies.

1.3.3 Attitude based models

Different behavioral models have been used to understand the factors that trigger individuals' pirating behavior. These models usually assume the intentions and attitudes as a base for the future behavior and, consequently, consider them an important predictor of a person's behavior. This is the reason why they are widely used not only in social sciences, but also in the consumer behavior discipline.

The new models appear on the base of the intentions theories that aim to increase the possibility to predict future behaviors.

Theory of reasoned action and

The theory of reasoned action is often used in communication sphere to understand the influence of particular persuasive messages on people. It was proposed by M. Fishbein and I. Ajzen in 1975, and has been used by many scholars to study the digital piracy mechanisms. The primary components of the model are the following: behavioral intention, attitude and subjective norms. The behavioral intention is seen as a processor of the behavior itself and it is caused by the person's attitude toward this behavior and by the subjective norms. Attitude in this model represents the expectations of a person about the consequences if the behavior multiplied by the self-valuation of these consequences. Subjective norms are the person's feeling of how the important for him/her people would assess this behavior.

Theory of planned behavior

The theory of planned behavior is an extension Theory of Reasoned action and it was also developed by Isaac Ajzen. He considered his previous theory insufficient, because it did not take into consideration the situations that were out of individual's control. He concluded that there might be situations when a person cannot behave in a particular way even if this behavior does not contradict his or her attitudes and subjective norms. Thus, in addition to the existing variables, which were attitude and social norms, one more was introduced: the perceived behavioral control. This variable represents the degree of complexity with which the action may be undertaken.

This theory is probably the most popular one among other theories that were used by the researchers to identify the factors influencing the online piracy. Cronan and Al-Rafee (2008) were among the most notable scholars who did it. Apart from the traditional elements of the model, they felt the need to include the past piracy behavior (frequency of occurrence of the digital piracy in the past) and the moral obligation (feeling guilt) as possible determinants of the digital piracy. The research demonstrated that both new constructs had large effects on the intention to pirate. The subjective norms, however, were not significant in that extended model.

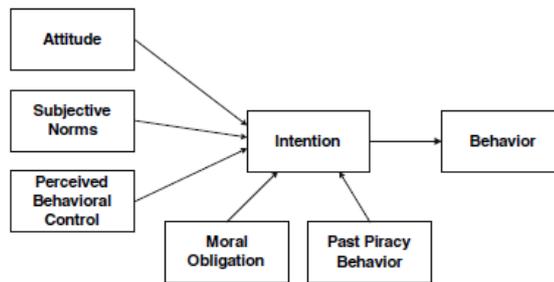


Fig.1.4 The TPB theory in context of digital piracy

Source: Cronan, T., & Al-Rafee, S. (2008). Factors that influence the intention to pirate software and media. *Journal of Business Ethics* (78:4), pp. 527-545. Retrieved from <https://www.springer.com>

T. Moores (2009) also conducted a research on software piracy that was based on the original model of the TPB. He aimed to explain the attitude construct by adding new variables. Since the authors assumed that the key to change an individual's attitude toward the piracy is the knowledge of its nature and the awareness about the punishment severity and inevitability, they defined two additional constructs: the likelihood of punishment and the fear of legal consequences.

The results of this study suggest that it is true that the knowledge of the nature of software piracy as well as the legal, social and economic consequences of it, increases the fear of legal punishment. In its turn, the fear of legal punishment influences one's attitude and, consequently, the behavior. However, unlike in the research of Cronan (2008) the subjective norms component played a significant role in determining the pirating behavior, while the perceived behavioral control did not seem to influence the final behavior. One possible explanation for it is that there was a low incidence of the software piracy among the respondents. Another one is that if one believes that the software piracy is wrong, the ease of the pirating process would not influence the behavior anyway.

Model of the Goal Directed Behavior

The Model of the goal directed behavior was developed on the base of the TPB. It aims to reduce the limitations of it by adding several new variables. Specifically, there is more emphasis on the individual motivation and needs.

Taylor et al. (2009) applied the model of goal-directed behavior to find the determinants of the movie piracy. They adapted the following research model (Fig.1.5). One important element is the motivation in the form of desires. They are the construct that mediate the effects of the anticipated emotions, utilitarian and hedonic attitudes on the intentions.

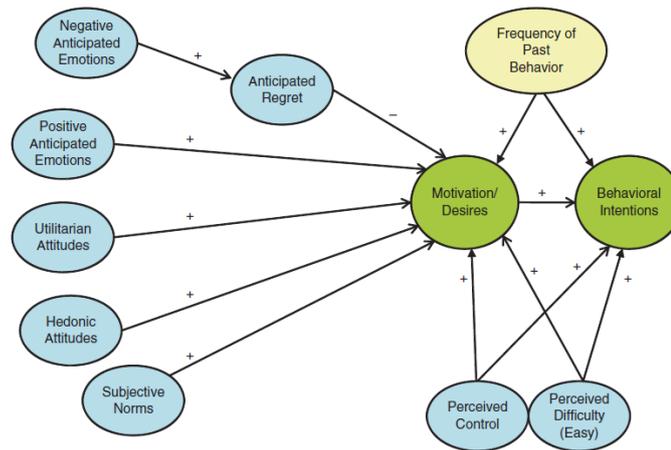


Fig. 1.5 The Model of Goal Directed Behavior in context of digital piracy
 Source: Taylor, S., Ishida, S., & Wallace, D. (2009). Intentions to engage in digital piracy. A conceptual model and empirical test. *Journal of service reserach*, 11 (3) pp. 246-262. Retrieved from <https://www.springer.com>

The proposed model explained about fifty per cent of the desire to illegally download music or movies. Desires are the most significant predictor of the behavioral intentions, while the past piracy behavior also strongly contribute to the model. In its turn, All the anticipated emotions, utilitarian and hedonic attitudes, subjective norms influence the desires. The traditional elements of the model (perceived behavioral control and perceived difficulty) are an important indicator too.

Triandis model

Triandis model is another attitude-based model that can be used to explore the phenomena of the digital piracy. Apart from attitudes, it includes social norms, facilitating behavior conditions (similar to the perceived behavioral control in TPB) habits and the expected consequences of the behavior. All of them are supposed to directly or indirectly influence the actual behavior. In many aspects this theory is very similar to the TPB and Social Cognitive theory.

Ramayah et al. (2008) applied this theory in their study of the internet piracy. The main constructs: habit, perceived consequences and social factors were found to influence intentions positively (Fig 1.6).

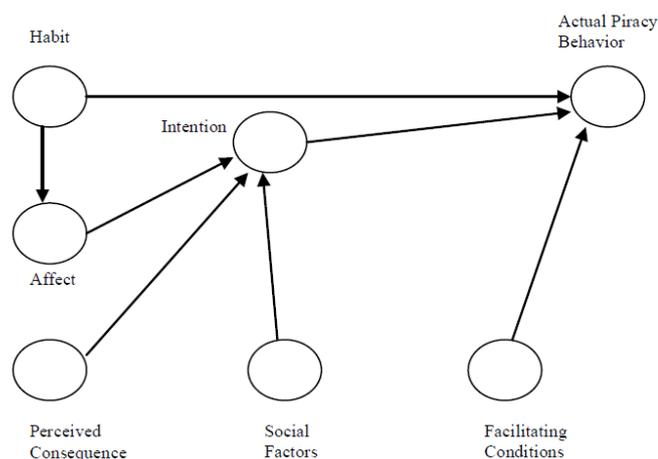


Fig.1.6 The Triandis Model in context of digital piracy

Source: Ramayah, T., Chin, L., & Ahmad, N. (2008). Internet piracy among students: An application of Triandis model. *International Journal of business management and science*, 1 (1) pp. 85-95. Retrieved from <https://www.springer.com>

1.4 Mixed models

It is not the unique situation when one research combines different models in order to assess the digital piracy motives in a broader way. The ones that unite ethical decision making theories and the intentions theories are especially easy to find. For instance, Arli D. (2014) based the research on the attitude, which is a principal component of the TPB model, but also employed two of three ethical judgment dimensions, which were moral equity and relativism.

Another example is N.Suki (2011) who incorporated the justice theory into the TRA and concluded that its elements, such as reciprocal and procedural fairness, subjective norms and attitudes significantly influence the consumers intentions to use the pirated software.

The new hybrid models are developed to explain the digital piracy from all the perspective. T. Moores (2006) changed the four-component model of ethical decision-making to enhance cognitive and behavioral elements, while K. Robertson (2011) combined the theory of planned behavior, deterrence theory and ethical decision-making theory and focused on the behavior as the dependent variable to identify the individual characteristics of the pirates. She found out the important characteristics of the illegal downloaders, such as their little concern for the law and less ethical concern.

Some studies aim to take into consideration models from cross-national studies as well as demand-based models. Camarero at al. (2014) used TAM model and the and the general theory of marketing ethics to assess the e-book piracy.

These examples demonstrate that it is possible not to be restricted by one particular model, but to combine some of them to overcome the limitations.

1.5 Summary

The exploration of the digital piracy factors is a big area of research, where different approaches and models are used. It is impossible to identify all the determinants of the piracy in one study, so generally scholars focus on one particular group of factors in their papers. The following diagram (Fig 1.7) demonstrates the focus of the studies and the models they adopt.

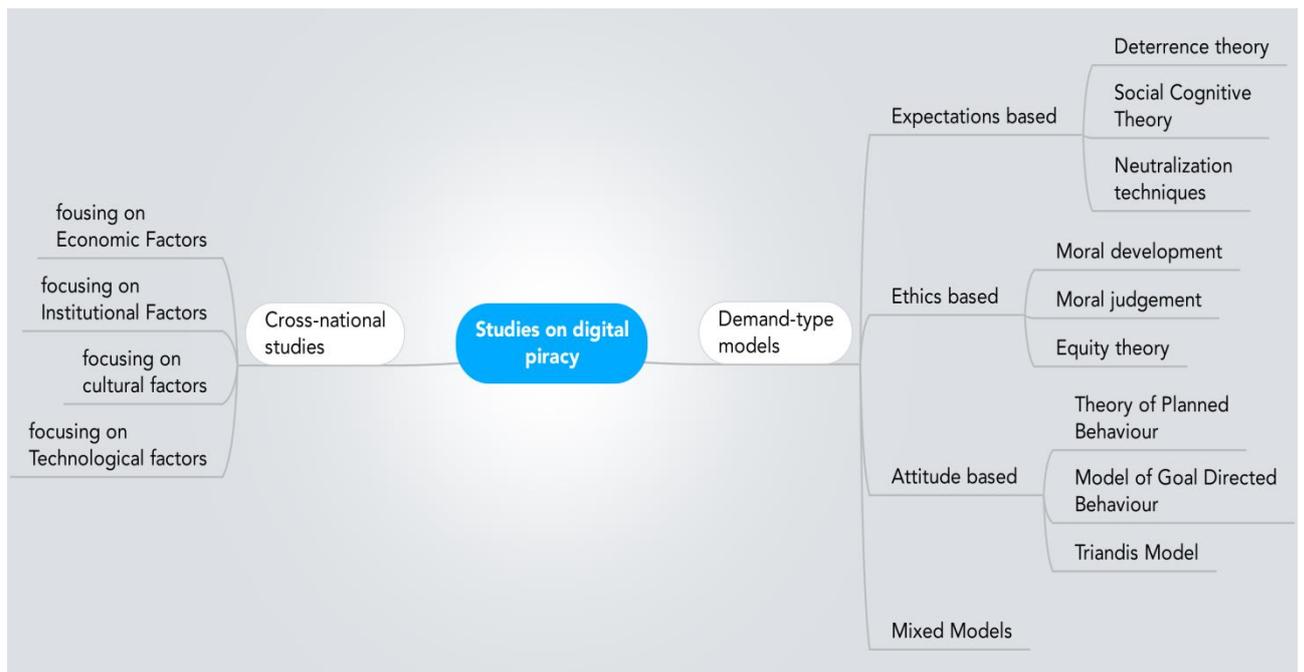


Fig.1.7 The studies on the topic of the digital piracy
Source: made by the author

The two big groups of studies are cross-national studies and demand-type models. The cross-national studies usually explore the external factors rather than internal consumers' motives to engage into illegal downloading and include five dimensions of factors: economic, technology, cultural, demographic and institutional. The demand-type type models focus on individual level, dealing with personal or internal motives to pirate of each particular individual. In their turn they can be based on the expectation of downloaders about the actions consequences, on the ethics, on the attitude toward illegal downloading. Sometimes the scholars adopt a combination of models to achieve better results.

Apart from this, it is clear that most of the studies focus on software, music or movie piracy, while other subjects of illegal downloading, such as e-book and TV translations, get much less

attention. It is probably connected with the less popularity of these industries. Nevertheless, it is also important to study them, because they also lose part of their profits to pirates.

There is an evidence that cultural factors influence significantly the decisions to pirate. Because of the cultural differences in the societies, the internal motives to pirate might also have differences for various countries. This means that there is no universal anti-piracy campaign that would be suitable for all the countries, but rather individual approach is necessary. Considering this fact, it is interesting that no study on digital piracy factors has Russia, where digital piracy is quite widespread, as its focus.

Therefore, the present study will focus on the identifying the digital piracy factors in Russia, using the example of the publishing and book trade industries. To do this, one, or combination of several models, described in this chapter will be used. Finally, the results of its application and the managerial implications based on them will be discussed.

2. THE EMPIRICAL RESEARCH DESIGN

2.1 Model of the empirical research

As it was stated in the previous chapter, the books, although a subject to the digital piracy, do not have enough coverage in the studies. This is the reason why the present research aims to focus on the e-books. Unlike other possible subjects of the research, they are more vulnerable since the electronic version are almost equivalent to paper ones with the existence of e-readers. What is more, there is no alternative way of making money: with movies the box-office generated a lot of profits, while in the music industries the concerts is an important source of revenues. Usually, this is not the case of the e-books. Thus, the determinations of the factors influencing the consumers' behavior in relation to the e-book piracy will be the goal of the empirical research. What is also important, the present research would be focused on Russia, since no prior similar study was conducted in this country. Therefore, the goal of this study is to identify the factors, influencing the e-book digital piracy in Russia.

From the literature overview it comes clear that it is impossible to conduct a research that would identify all the factors that influence digital piracy motives. Consequently, to narrow this down it is necessary to focus on only one of the two big groups of factors described in the previous chapter: cross-national ones or demand-based models. It is also possible to apply mixed methods, incorporating the elements of both types of studies. Since the present thesis belongs to the area of the consumer behavior it is reasonable to concentrate primarily on the individual factors and apply on of the demand-based models. The step question is to choose one of these models. Criminology models belong to a different sphere, so approaches that are more relevant should be used.

While the existing e-book piracy studies are focused on ethical perspective, less attention in them is attracted to the behavioral models based on attitudes or expected outcomes. These behavioral models slightly vary in their approach and although they are competing, they are not inconsistent with each other (Taylor et al., 2009). Actually, compared to attitude-based models that usually involve a Theory of Reasoned Action as a core, the social cognitive theory, providing the same elements in many respects, gives more attention to the less conscious influences (Jacobs et al., 2012), taking into account the embedded behavior. Consequently, the present study will be based primarily on the Social Cognitive Theory.

It is also important to take into account that the e-books are a specific product and usually consumers have to use e-readers or other portable mobile devices to have an opportunity to read comfortably. This is the reason why it is necessary to include the technical elements to the model.

Camarero et al. (2014) successfully incorporated the Technology Acceptance Model into their e-books piracy factors study. Following this example the TAM will be applied in the present study as well. Therefore, in this study the Social Cognitive Theory with the elements of the Technology Acceptance Model will be employed.

Consistent with the study of LaRose and Kim (2007) the dependent variable of the model will be the intention to continue to engage into illegal downloading. Intentions to pirate will be explained by a number of sub-variables.

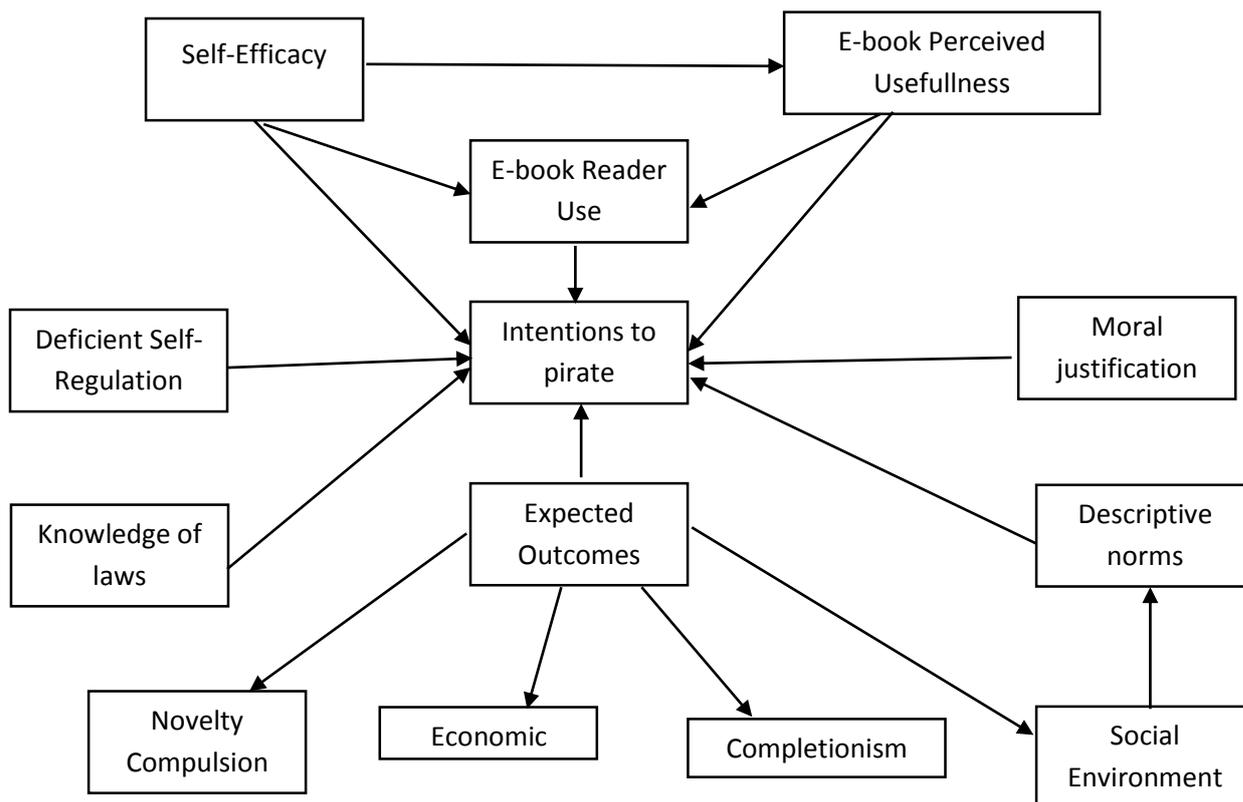


Fig.2.1 Proposed model of the empirical research
Source: made by the author

2.1.1. The technological components of the model

According to Camarero et al. (2014), the basic element of TAM, the ease of technology, may be replaced the perceived self-efficacy. This replacement is convenient for the purpose of the present study as well, because self-efficacy is also the element of the Social Cognitive Theory. Hence, this change will eliminate the duplication of the variables. Self-efficacy refers to the ability of a person to successfully perform a particular behavior and get the desired outcomes. In terms of the e-books, this parameter is necessary to understand the degree to which book consumers believe that they can find, download and install the e-book on their devices. If the individuals find it easy to do, it is likely that they would use e-books and e-reader devices more than those who do not. In

additions, this easiness could mean that they would be more likely to engage to piracy books activities, since there is no difficulty for them in obtaining the free digital books from the Internet.

H1. Perceived self-efficacy in the use of e-books is positively related to the perceived usefulness of e-books (H1a), the use of e-books (H1b) and intentions to pirate (H1c).

Another question is how the usage of the electronic books effects the piracy. The electronic books is the only format in which it is possible to pirate the books. In addition, there are e-readers that have become a disruptive innovation that changed the rules of the competition if the publishing industry and made some book stores rethink their strategies and business-models. E-readers make it easy and convenient to read e-books, so they can be a good substitute for the traditional paper books. Once a person has an opportunity to use e-books, there is a probability that the more he uses this format, the more he pirates.

H2. The use of e-books is positively related to the intentions to pirate

In the same time perceived usefulness of the new technology is linked to the intentions to use this technology. In this case, if an individual understands the advantages of the e-books, he will be more likely to use the e-books and, according to the previous hypothesis to engage into illegal downloading as well.

H3. Perceived usefulness of e-books positively is related to the use of e-books (H3a) and intentions to pirate (H3b).

2.1.2 The behavioral components of the model

The hypotheses that are presented below are based on the studies that previously employed the social cognitive theory model in an attempt to explain the factors influencing the digital piracy behavior (LarRose and Kim, 2007; LaRose et al., 2005; Jacobs and A. Heuveiman, 2012).

The main explaining variables in the SCT models are expected outcomes of the performing a particular action. In other words, they present various kinds of incentives that motivate an individual to perform this particular behavior, which in terms of the present study is illegal books downloading. These incentives include completionism, novelty compulsion, economic expectations and social environment. The nature of the expected outcomes factor suggests its relation to the intentions to pirate: the more motives a person has to pirate, the more likely he will do it.

H4. All the expected outcomes are positively related to the intention to pirate.

The novelty compulsion, or novelty seeking is a motivations that makes people looking for new experiences. From the perspective of this research, novelty seeking accounts for the drive to read recently published books as well as the books of different genres, new to the individual. Hence, this motivation may be a serious drive for piracy, since very often it is the most convenient way to obtain new releases.

H4a. The novelty compulsion is positively related to the intention to pirate.

Herein, completionism is the desire to read a large number of books or to complete all the books of any particular series or genre. Completionism highlights that the root of this desire is the aspiration to collect the books read rather than a passion for new literature experiences. It is probable that the more an individual wants to collect, the more is his intention to pirate books, because it will give him free access to almost any of them.

H4b. The completionism is positively related to the intention to pirate.

The economic outcomes concern the questions of the individual's finances. From the perspective of this study, the economic outcomes are supposed to demonstrate the perceived economic benefits of books piracy compared to the alternative legal purchase. Since an opportunity to download the files without any payments is a crucial element and driver of the digital piracy, the economic outcomes are supposed to be positively related to the intentions to pirate.

H4c. The economic outcomes are positively related to the intention to pirate.

The social outcome means the attitude consequences of the particular behavior that may be observed in the social environment of a person. This also includes the attitudes of close social circle, their approval and disapproval. The downloading behavior should not be an exception and has to have a reflection in the expected social outcomes.

H4d. The social outcomes are positively related to the intention to pirate.

The deficient self-regulation attempts to measure the unconscious mechanisms that may play a role in the downloading behavior. To be more specific, this construct demonstrates how embedded if the behavior in the everyday routine. It signifies not only the habit, but also addiction and the repetition of the behavior even without actual need. This kind if addictiveness is supposed to lead to the continuation of the downloading behavior.

H5. Deficient self-regulation is directly and positively related to the intentions to pirate.

The descriptive norms are the person's observations about how his social environment behave. These perceptions might be a guidance for the personal behavior of the person, especially when an uncertainty about the ethical standards exist. Therefore, an individual might follow an example of his social circle when it comes to the illegal downloading.

H6. The descriptive norms are directly and positively related to the intention to pirate (H6a) and to the Social environment outcomes (H6b).

Since piracy is supposed to be unethical and immoral behavior that does not have a legal ground, the downloaders have to consciously or unconsciously justify their actions. This is what the moral judgement, also called moral justification, construct measures. Therefore, the more is the ability of a person to justify his behavior, the easier for him will be the decision to download more.

H7. The moral judgment is positively related to the intention to pirate.

Finally, for the Russian realities the knowledge of laws is also an important variable. Since there is no legal punishment that would be imposed to the end-user pirates, they might believe that the piracy is not illegal at all, and this boosts their intentions to pirate.

H8. The knowledge of laws is positively and directly related to the intention to pirate.

Self-efficacy, which is an element of the Social Cognitive Theory, was already included in the final model as the part of Technology Acceptance model.

2.2 The methodology and instruments of the research

2.2.1 Methods of the research

The quantitative research in the form of the survey was conducted in order to collect the information about the factors influencing the e-books digital piracy. The survey was chosen as its method, because it proved its convenience in the previous studies. The questionnaire (Appendix 1) that was used in it was built on the basis of the studies of LaRose and Kim (2007), Jacobs et al. (2012), Camarero et al. (2014). In addition, several new questions were included in an attempt to improve the factor loadings. The questionnaire was translated into Russian language, so that non-English speaking Russian respondents would not have a problem with filling it.

Because of the peculiar character of the research topic the questionnaire was initially sent to ten people with the inquiry to give the feedback about the questions formulations. As a result, five questions were reformulated to make them sound more neutral and easier to understand.

Most of the questions were measured using the 7-point Likert scale, where 1 point refer to the “absolutely disagree” option and 7 points to “absolutely agree”. The exception are the demographic questions and the consumption question. The actual usage of the e-books was assessed on the basis of the electronic books consumption compared to the traditional books.

The necessary sample size is more than one hundred individuals, which is a minimum requirement for the analysis of information. In the majority of the previous studies the sample consisted of business students only. Krawczyk et al. (2014) proved that the social norms and ethical judgments of students do not differ from the ones of the other population. In the present study the attempt was to get more respondents of different profiles. Thus, the questionnaire was distributed via Internet and, specifically, was placed in the group devoted to the books and literature in the popular Russian social network.

The questionnaire was completed by 161 respondents, three of whom have never illegally downloaded electronic books. Those three answers were excluded from the analysis. Since the questionnaire was placed in the group in the social network, the answers came from different cities and regions in Russia. However, the majority of the respondents were from the major Russian cities: Saint Petersburg and Moscow. As for other demographic statistics, around 70% of the respondents were females. Approximately the same percentage accounts for people aged 20-29, while the other age groups accounts for around other 30%.

2.2.2. Data analysis procedures

In this study, the two-step approach to the structural equation modeling was used in order to obtain the final model of piracy intentions factors.

The first step was to create the measurement model. The measurement model demonstrates the relationship between the latent variables and corresponding observed variables. As suggested by Farrell&Rudd (2009), the assessment of the measurement model was started using the exploratory factor analysis in order to identify the cross-loading items. Next, the confirmatory factor analysis was conducted to test the measurement model, examining factor loadings, composite reliability, convergent and discriminant validity.

The second step was to create the structural model that would demonstrate the path coefficients, revealing the relationships among the latent variables that had been identified during the previous step. The path diagram was developed for this purposes.

Therefore, the data collected from respondents was analyzed with the usage of the IBM SPSS software. In addition, in order to create and analyze the structural model of the downloading intentions, the program Amos 19 was used to conduct the structural equation modeling.

The assumptions of the interval-measurement scale and the same measurement units were satisfied. Besides, the absolute minimum of the 100 respondents was reached. Finally, there were no missing values in the data. Therefore, the factor analysis and the model construction could be performed.

2.2.3 Limitations

The first limitation is that the present study has an exploratory nature. The sample, though aiming to embrace people from different geographical area and with different backgrounds is not representative for the Russian population, because the necessary sample size to satisfy this condition would be too big and difficult to get within a scope of this research. Thus, the research will have the exploratory nature.

Another limitation is that it is not possible to explain all the complexity of factors that could influence the behavior within one study. Therefore, current study focuses on the particular set of the behavioral and technological factors that are derived from the previously applied and tested models.

The third limitation is that the survey results might be reliable only to some degree, which is the case of all the studies, executing the self-reported methods to research the illegal or deviant behavior. Some individuals might be not fully honest when filling out the questionnaire. Although the questions were formulated as correctly as possible and the obtained results in general were supportive for piracy, it could happen some individuals were not fully honest when filling out the questionnaire and tried to give smoother answers. In addition, the hypothetical formulation of one question has not given an appropriate result.

2.3. Summary

To identify empirically the factors that influence the e-book piracy factors in Russia, the model consisting of the elements of the Technology Acceptance Model and Social Cognitive theory will be employed. Based on the previous studies on the area of digital piracy and, particularly, the e-book piracy, eight hypotheses with a number of sub-hypotheses were introduced to be tested within the present study.

During the research process, the quantitative research techniques were applied, because they allowed obtaining sufficient data for the structural model building. The survey was chosen as

a method, while the questionnaire was the instrument to get answers from the respondents. The questionnaire was distributed in the social network via the group devoted to the books and literature.

The collected data has the answers of 161 respondents, three of whom had never illegally downloaded books, which left 158 answers for the analysis and the model building.

Data analysis procedures included the two-step structural equation modeling. The first was to create the measurement using both exploratory and confirmatory factor analysis, while the second step was done to create the structural model using the path analysis procedures.

The limitations of this study are mainly related to its exploratory nature.

3. THE FACTORS INFLUENCING E-BOOK PIRACY IN RUSSIA

3.1 Results

The measurement model

Before the analysis of the initial model and the overall model fit, an exploratory factor analysis was conducted in order to test the whether the variables really measure the factor they were supposed to measure. The previous studies have already analyzed the underlying dimensions of the variables that were utilized in the present research, so the number of factors is already pre-defined. However, since some new variables were added to the questionnaire, it is necessary to check the reliability and validity of the factors and define the variance explained in the factor explained by the variables. To do this, the principal component analysis is applied.

As a result of PCA analysis, the variables that had significant cross-loadings were removed from the further analysis. In addition, an interesting observation was made: the PCA showed that the variables that were supposed to measure Deficient Self-Regulation factor were actually measuring two different factors. In an attempt to explain this result, an additional literature analysis was conducted. Appropriately, the observation was confirmed: the deficient self-regulation can actually be split into two dimensions: deficient self-observation and deficient self-reaction (LaRose, 2010). The deficient self-observation is an indicator of the self-awareness about the embedded behavior, while deficient self-reaction describes “a failure of control”.

In the present study the variables “*I sometimes download files without actually considering it*” and “*Downloading is a habit I have gotten into*” were clearly attributed to the deficient self-observation, whereas the variables “*I get upset when circumstances like a bad connection stop me from downloading*” and “*I often download more or less the same amount of books every month/week, even when I cannot find books I want to read*” looked like they measured the deficient self-reaction. Therefore, for the further model development the initial deficient self-regulation variable was split into its two dimensions.

Further, the confirmatory factor analysis was conducted to find out to which degree the assumed variables truly measured the identified factor. The constructed model was tested for the convergent and discriminant validity as well as reliability. The broader condition of convergent validity was applied: each of the factor loadings had to be significant in order to assure the convergent validity (Janssens et al., 2008). This condition was met, because all factor loadings were significant and above the recommended minimum of 0,5. After the convergent validity verification, the reliability of the model was checked using the composite reliability and the average variance extracted (AVE) indicators. The satisfactory of the composite reliability was 0,6,

while for AVE it was 0,5. However, AVE more than 0,4 was also considered an adequate value if the reliability was higher than 0,6 (Fornell, Larcker, 1981). As an indicator of the discriminant validity, the average variance extracted of each construct had to exceed the value of the squared correlations with other constructs. The only two actor that did not show appropriate values and were excluded from further analysis were Deficient Self Reaction, which might have been due to the fact that it was not measured appropriately, because there had been no intention to measure it from the beginning, and Descriptive Norms. Other constructs met all the criteria and are summed up in the Appendix 2.

Therefore, the factor analysis procedure reduced the number of items that were initially included into the survey (Appendix 2).

For the purposes of the further analysis and the facilitation of the structural model building, all the multi-scales were treated as a single indicator by taking the mean value of all the items in each constructs.

Structural Model

The analysis of the structural model was based on the maximum likelihood estimation. As the previous studies suggest, the model fit is estimated using the ratio between the Chi-square and the degrees of freedom, the Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA) and The Tucker-Lewis Index (TLI) with the Comparative Fit Index (CFI). The ratio between the Chi-square and the degrees of freedom should not exceed 5 for the models with a good fit (Hoyle, Panter, 1995), RMSEA should be less then 0.6 (Hu, Bentler, 1999), TLI and CFI should be greater than 0,95 respectively (Hu, Bentler, 1999). GFI and AGFI should preferably be greater than 0.8 and 0,9 respectively (Janssens et al., 2008).

The initial model did not show a good data fit (Chi-square = 294,8, $p < 0.001$; discrepancy/degrees of freedom = 5,459; GFI = .739; AGFI = .623 ; TLI = .484 ; CFI = .578; RMSEA = 0,183) and had to be changed.

Based on the modification indices, the suggested changes were implemented into the model. First of all, the Moral justification was removed from the model since this factor did not show any significant paths to other parts of the model. After that, a number of initially modelled paths was removed, but in the same time, a range of new paths was created.

The new model (Fig. 2.2) generated a very good fit (Chi-square = 31,975, $p = 0,276 > 0,05$; discrepancy/degrees of freedom = 1,142; GFI = .960; AGFI = .922 ; TLI = .987 ; CFI = .992; RMSEA = 0,03). In the Covariance Matrix (Appendix 3) there are no values larger than |2,58| which means that there are no model misspecifications.

The 69,3% (Appendix 4) of the intentions to continue pirating are explained by the model.

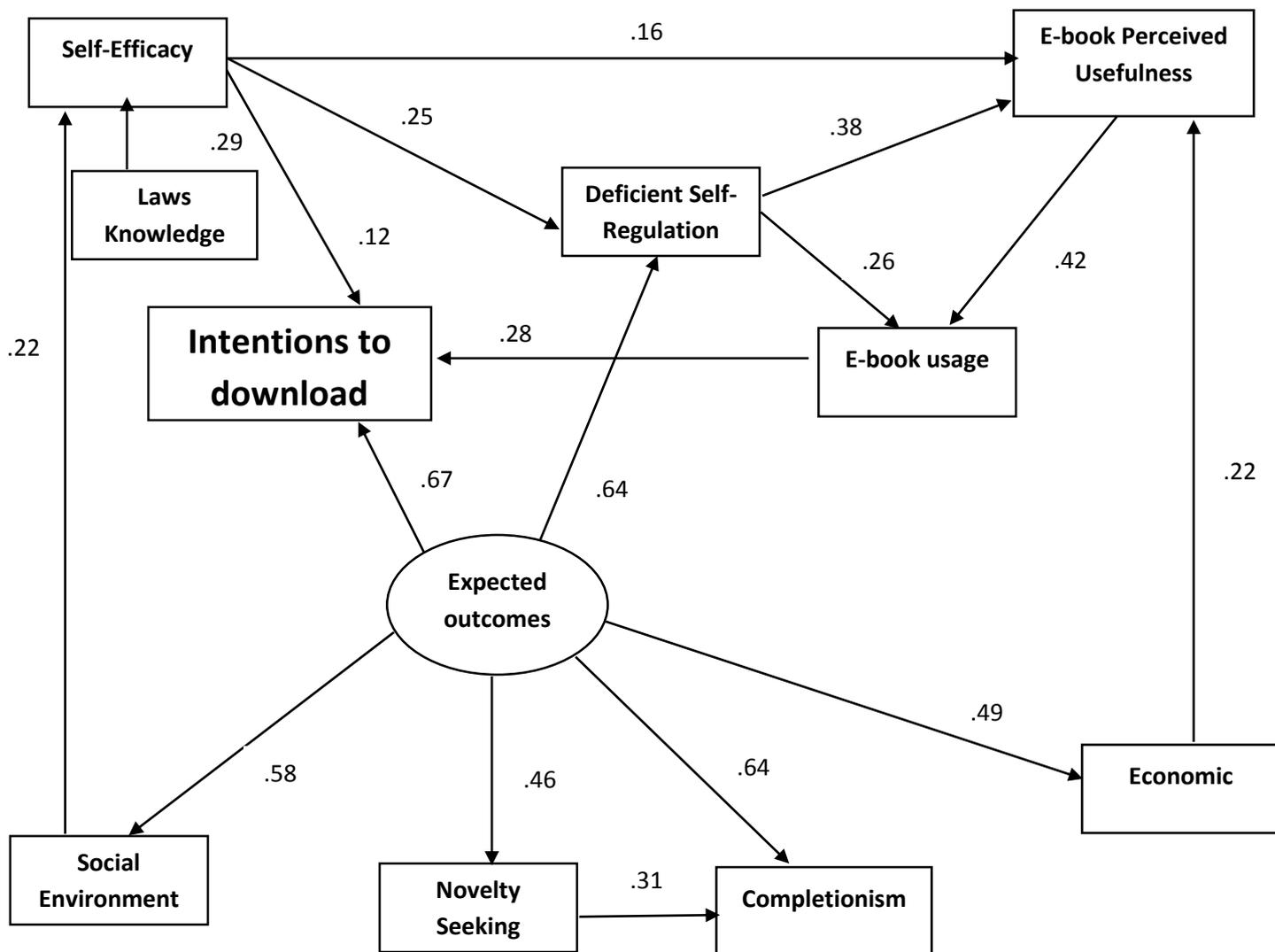


Fig. 2.2 The final model of the downloading behavior

Source: created by the author

Since the model shows an excellent fit level, it is possible to test the hypotheses that were introduced in the previous chapter.

The first hypothesis that self-efficacy is related perceived usefulness of e-books (H1a: $\beta = 0,16$, $p < 0,05$) is supported with a standardized estimate of .16 and a significance level that is less than 0,05. The Self-Efficacy, in its turn, has a direct effect on the intentions to pirate (H1c: $\beta = 0,12$, $p < 0,05$), but not on the use of the e-books (H1b).

The second hypothesis that there is a positive causal relationship between the use of electronic books and the intentions to pirate (H2: $\beta = 0.27$, $p < 0.001$) them turned out to be true with a standardized estimate of .27 and a significance level that is less than 0,001.

The Hypothesis that the perceived usefulness of e-books positively affects its usage (H3a: $\beta = 0.42$, $p < 0.001$) was confirmed with a standardized estimate of .42 and a significance level that is less than 0,001. The H3b, on the contrary, was rejected: the perceived usefulness of e-books does not directly influence illegal downloading intentions.

All the initially indicated expected outcomes (Novelty seeking with $\beta = 0.46$; Social environment with $\beta = 0.58$; Completionism with $\beta = 0.64$ and Economic expectations with $\beta = 0.49$) actually belong to the expected outcome factor with the significance level below 0,001. Altogether, as the Expected Outcomes they have a significance influence on the Intentions to perform an illegal downloading behavior ($\beta = 0.67$, $p < 0.001$). Thus, the hypotheses from the H4 group are supported.

The moral justification variable did not show any significant paths to other variables, including the hypothesized connection with the Intentions to pirate. Therefore, the hypothesis that moral justification is positively related to the intentions to pirate (H7 is rejected).

The hypothesis that the knowledge of laws is directly and positively related to the intention to pirate (H8) is rejected, because the path between the two variables was not found significant. Nevertheless, there is an indirect path through the self-efficacy.

Finally, the hypothesis about the influence of the deficient self-regulation on the intentions to pirate (H5) is disregarded, because during the factor analysis the construct had to be split into the two tow different factors, dimensions of the initial construct: deficient self-observation and deficient self-reaction.

Despite the fact that many of the initial hypotheses were rejected, the model revealed new relationship among the variables that might contribute to the understanding of the problem.

3.2 Discussion

Compared to the past models that attempted to explain the intentions to pirate, the final model of this research has a very good predictive power: 69,3% of the variance in the intentions to download are predicted by other variables in the model. Although the final model of this study differs from the initial model of downloading in terms of Social Cognitive theory, it is not inconsistent with the results of the previous studies. Just as SCT, the Technology Acceptance Model within this study showed some similarities with the findings obtained by other researchers,

but it had particular modifications as well. Nonetheless, some results and connections between the final model elements showed themselves as new and yet unobserved in the studies of the similar type.

Moral justification was not significant in the model and failed to predict intentions to download books. Nonetheless, Jacobs et al. (2012) obtained the similar result, exploring the movie downloading behavior in context of Social Cognitive Theory among the Netherlands residents. They explained it by the fact that current generation does not seem to harbor many moral claims about pirating behavior. It is likely the root of the of the problem with the Russian respondents too: the collected data demonstrates that more than 60% (Appendix 5) of them allow themselves to pirate as many books as they wish and, moreover, they do not believe in the damage posed by the piracy, and do not know its scale, or, what is also probable, try to ignore this information (Appendix 5).

From the perspective of the technology acceptance model, it was found out that e-book usage directly influences the intentions to engage into the books downloading activities. This is not a surprising relationship, because the electronic books is the only possible quick and easy way to obtain almost any book without paying for. Consequently, e-book users have an opportunity to illegally read and download the files in which they are interested. Since it was already concluded that in Russia piracy is considered an acceptable behavior, many owners of the portable reading devices benefit from this perception and tend to illegally download books rather than buy them legally.

Surprisingly, e-book usage is not related to the self-efficacy, although in the initial model this relationship was supposed to exist. An explanation might be that even though many Internet users are capable of books finding, installing and downloading, not all of them will use the electronic format often. This can happen, for instance, because personal preferences matter not less than the actual abilities to perform a behavior: some people do not need the benefits of the electronic format and prefer traditional paper books. Therefore, it is necessary to look at the influence of the perceived e-book usefulness factor on its usage.

The e-book usage is significantly influenced by its perceived usefulness by the respondents. In case if a person values the benefits that a particular product can deliver, he or she will be more

willing to use this product. Accordingly, people who could see the benefits of the electronic books are inclined to use them.

The perceived usefulness does not influence the intentions to pirate directly, because just as in case with the self-efficacy's absence of effect on the e-book usage, this factor only is not enough to explain motives of people to engage into the downloading activities. Therefore, only the indirect influence on the intentions through the e-book usage takes place.

As for the relationship between the self-efficacy and the perceived e-book usefulness, it is significant, but rather weak. Still, the ability to perform a process of the book downloading positively influences the benefits that e-books can propose.

Unlike in previous studies, exploring the social cognitive theory application in downloading activities (LaRose&Kim, 2007; Jacobs et al., 2012), in this study the self-efficacy appears to have a direct effect on the intentions to download. It is less visible compared to the effects on the intentions by the expected outcomes and the usage of the e-books, by it still exists. The reason behind it might be the difference in the subject of the research, because Camarero (2014) who studied book piracy reported the relationship between the intentions to download and the self-efficacy. Therefore, the process of the finding, downloading and using movie and music illegal copies might be less challenging than the similar activities associated with the books.

The perceived knowledge of laws does not have a direct influence the intentions to continue book piracy activities as well, but was positively connected with the self-efficacy. This finding is inconsistent with the result of the study of Jacobs et al. (2012) who first tried to introduce this variable. Their research attributed it to the expected outcomes and found the connection with the economic outcomes. The authors, however, questioned its direct effect on the other variables. In the present study it was observed that the overall knowledge of laws associated with the digital piracy was low. Nevertheless, it can be seen that if a person believes in his law knowledge, he will also be more confident in his abilities to download. The reason behind it is that in Russia there is no legal responsibility for the downloading of the materials that were distributed in the Internet illegally.

Deficient self-regulation that was present in the initial model was modified: after the exploratory factor analysis procedures it was split into its two dimensions: deficient self-reaction

and deficient self-observation. While the former construct was not measured appropriately enough to be included in the structural model, the latter one succeeded to become its valuable component. Although the deficient self-observation does not influence the intentions to download directly as its predecessor was supposed to do, it has a relationship with many variables in the model. Indeed, the habit and the internal acceptance of the own downloading behavior contribute to other experiences that motivate people to get the e-books illegally. For instance, the deficient self-observation positively influences the e-book usage and its perceived usefulness, because an individual who is used to this format (since that person downloaded books before and personally experienced dealing with this format), is very well acquainted with the benefits and drawbacks of the electronic books and will be more willing to continue using them.

The deficient self-observation itself is influenced by the self-efficacy, which is an ability to find, download and install the e-book for the further usage. This is explainable, since in order to become deeply engaged into the downloading activities a person on the first place has to be able to perform this behavior. What is interesting however, there is no direct relationship of the deficient self-observation and the intentions to pirate. Instead, it influences it through the expected outcomes latent variable to which it belongs. The contribution of the deficient self-observation to this factor is quite significant, and the reason behind it is that when a person is used to a particular behavior he or she knows what to expect from its consequences. Thus, it can be argued that although the downloading behavior is already established, it might still be sensible to the changes in the other types of incentives that motivate the downloading behavior.

Apart from the deficient self-observations, novelty-seeking and completionism are the other two variables that contribute to the piracy expected outcomes of a person. Accordingly, as it was predicted in the initial model, completionism and novelty seeking are among the incentives that motivate downloading behavior. That is, if a person loves to read a lot of books and/or is concerned about new books releases, he or she will be a more likely candidate to pirate. What was not determined by the previous studies, however, is the relationship between these two factors. Although novelty seeking and completionism do not measure the same values, both components actually share some common ground. It is not necessarily true that the completionists are driven by the new experiences, but it may be argued that this type of readers who want to get acquainted with a large number of books do not only focus on the ones published long ago, but also look for new releases. It is likely that a person who aims to read as much as possible and is also engaged

into the reading a book series will also follow the tendencies on the book market, new releases and the reviews on them.

The significance of the completionism means that people not necessarily pirate because they do not have money to buy books. Completionism highlights that people might read some books “for the bucket list”. As soon as they do not have to pay to do so, they will continue doing this. However, if economic constraint arise, some of the completionists will probably prefer to go without them. The same is true for the novelty seekers in cases with new books releases.

As for the other expected outcome, the social environment, initially this variable included the notion of not only approval and social encouragement of downloading behavior, but also possible disapproval of this activity. However, the respondents did not respond to the statement “*If my family or friends disapprove of me downloading, I would probably do it less*” in the same way as they did for other items of the social environment. In fact, this variable had a mean of 2,58 out of seven (Appendix 5), which is a very low indicator. It is likely that either downloading activity is an intimate action that is not influenced by the person’s social environment, or there are other benefits than the ones that social environment can propose. Still, while it is true for some of the respondents, the others value the contribution of the downloading into their social environment. This conclusion is supported by the final model, in which Social outcomes significantly contribute to the Expected outcomes, which means that social environment is another thing that might either motivate or discourage people from the book downloading activities. This relationship has a positive nature, because it looks that the social environment in fact encourage people to pirate: as an outcome of this behavior, they can discuss the books they have downloaded and read with their friend, to give and to get the recommendations.

Therefore, coming back to the question about why deviant reaction of the respondents on the statement about the disapproval of their friends and relatives, the answer might be the hypothetical formulation of the question. It may be hard to answer the questions that relate to the situation that has never been experienced before, which is the case with the downloading disapproval. The proposition that “*Among my friends, downloading a lot of books is considered normal behavior*” was surprisingly widely supported within the surveyed sample (Appendix 5), which signifies the most probably they indeed did not experience ab opposite situation in their lives.

The social outcomes also have a relationship with the self-efficacy. It was discussed previously that the social environment encourage an individual to pirate, because of the general approval atmosphere. In addition, in the circle of friends people can not only discuss the books that they have pirated and give and get the recommendations about them, but also help each other with the problems they face when downloading. They may advice a web site to find the particular book or to provide a friend with the information about available formats and compatibility with different reading devices.

The economic outcomes, as it was suggested before, are an important indicator of the illegal downloading intentions among other expected outcomes. Although the respondents agree that illegal books downloading helps them to save money, there is more inconsistency with notions that they would not be able to afford all the books they download or that they would read less if they could not download. It is worth to note that the test outside of the model showed no relationship among any of the economic variables and the perceived level of the family income.

What is interesting, though, is the fact that the economic outcomes are less indicated that any other downloading expected outcome with the only exception of descriptive norms. This might relate to the fact that the financial reasoning behind the downloading intentions is not always of the primary importance. This finding is consistent with the results of the previous study of Jacobs et al. (2012) who were researching the motives to pirate the movies. They explained this by the notion that “buying movies and wanting to see movies are increasingly disconnected from on another”. It is probable that the same rule is true for books too: if a person considers a possibility of reading a particular book, he might not be ready to buy it. If this book is available for free, legally or not, there is more chance that the person will try to access and read it. One statement from the questionnaire favors this conclusion: more than two thirds of the respondents consider as a good option an opportunity to give some money to the author directly, after having read the book. This happens because some people are reluctant to pay for what they might not like, which is an important case within the entertaining industry and literature in particular.

From the final model, it follows that the economic outcomes are also related with the perceived usefulness of the e-book usage. This relationship is not surprising, because the electronic books are the only way to obtain almost any book without any payments. Thus, considering the fact that piracy is considered a common thing among Russian respondents, they unconsciously attribute the money that they save when pirating to the benefits of the electronic books.

Accordingly, an ability to get the books for free is considered one of the important benefits of the e-book format.

Overall, the obtained final model successfully complies the social cognitive theory and the technology acceptance model in the context of the books piracy. The relationships of the components within this model point to particular characteristics and motives of the digital pirates that can not only help to suggest the future of the digital piracy in Russia, but also can be the base for guidelines to reduce the impact of this problem.

3.3 Managerial implications

Nowadays, when the digital content, once located in the World Wide Web, may be illegally accessed and used by any Internet user, the digital piracy poses the challenges for any company that relies on the revenues from the digital products. This problem may be tackled on different levels of influence, but within the present study design, the idea was to discover the motives and factors influencing the decisions to pirate of the final consumers of the digital goods. Although it is hardly possible to eliminate the digital piracy without the legal and, thus, government involvement, it is achievable to reduce their motivation to pirate influencing through the other drivers. Therefore, the following implications, developed on the basis of the model analysis results, attempt to reduce the books digital piracy addressing consumers' motives and beliefs. Although the study was focused on the books piracy and the recommendations address mainly the needs of the publishing industry and books stores, some findings may be applied to the certain degree to any industry related to the digital goods trade.

The first set factors that was explored within the declared framework is the technological factors. An important observation from this part of the model is that the electronic books usage directly influences the intentions to engage into the books downloading activities. It is alarming, because more and more Russian people have an opportunity to obtain and read books in the electronic format: from the sample surveyed almost 70% of the respondents possess an e-reader, a special device for books reading, while from those, who do not have it, 70% read the their e-books on other portable electronic devices, such as mobile phones or tablets. The rest of the sample has an opportunity to read from the computer screens. Considering that the mobile penetration as

well as the internet penetration continue to increase in Russia², it is not likely that the piracy rates will decrease unless some preventive actions are undertaken.

What makes the books digital piracy more difficult to prevent is the relative easiness with which the book files may be obtained using the Internet. Unlike in the case with software or videogames, where the technological complexity of the product allows to introduce measures that make an installation of the non-licensed, pirated product a more complicated process that requires particular skills and might be difficult to understand to those who had not tried it before. This is not the case with the electronic books: it does not demand a potential pirate to find, download and install it to any portable device, be it an e-reader or tablet or mobile phone. What is worse, when users obtain a book, they can do with the file whatever they want. Specifically to upload to any popular site, e.g. torrents sites or any other sharing community, where it will become available for many more users. It looks like the case when one gives the book to his friends, but the scale, and consequently, companies' losses are not comparable. The way to fight it is to prevent uploading. Currently, one of the options is to Digital Right Management (DRM), that can be either very restrictive for consumers (technological DRM), or, more flexible (social DRM). The Technological DRM includes the technical protection to control the usage of the digital content. The social DRM does not restrict readers in the usage of the product, but provides a book publisher opportunity to trace an illegal distributor if he used his copy for mass distribution. The DRM solution, though, has several drawbacks among which are its negative consumer perception, the necessity of the life-long support, high costs and, finally, the existence of the ways for the final customer to remove it (Blankfield and Stevenson, 2012). Therefore, the DRM should be considered as one possible element of the influence on the consumer.

The other elements that can contribute to the reduce of the digital piracy refer to the social and cognitive part of the model. What is interesting, one useful implications comes from the rejected hypothesis: the moral judgments do not influence the intentions to pirate. It may seem a bad sign, because the obvious solution with fighting the law-abiding behavior is to put a pressure on the moral norms and ethical concerns of the person and the overall social disapproval of that behavior. However, as it was explained in the Discussion section of this paper, the situation is not as bad as it seems from the first sight: the problem is not that people can justify the downloading, the problem is that they do not see the need to so. As Gopal (2001) stated, the problem with the

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[http://emarketer.com/Article.aspx?R=1012047&dsNav=Ntk:relevance%7crussia+smartphones+usage%7c1%7c,Ro:3,Nr:NOT\(Type%3aComparative+Estimate\)](http://emarketer.com/Article.aspx?R=1012047&dsNav=Ntk:relevance%7crussia+smartphones+usage%7c1%7c,Ro:3,Nr:NOT(Type%3aComparative+Estimate))

piracy that it is not considered as immoral behavior. Hence, the downloaders do not feel guilt after performing it and just do not need to justify this behavior. Therefore, it is necessary for all the operators in the industry (books author, publishing companies and book trading stores) to collaborate on increasing awareness about the problems that the piracy represents for them. There were previous attempts to do this, but they did not have a regular character and were not very successful. The first example is the manifesto of the leading Russian publisher “Exmo” that presents a long text about why piracy is damaging³. Another example is how the books authors try to influence on the conscience of the readers is the special site devoted to the problem of piracy - “Piratstvu net”⁴. The site contains the opinions of famous Russian writers about the problem of piracy and a list of sites, where it is possible to buy them legally. All the comments of users on this site have negative feedbacks about the campaigns.

The failure of the previous attempts to spread awareness might be due to the adopted approach, not to the wrong direction. Mere words that piracy is bad and damaging will not persuade people to change the deeply seated beliefs of the public and their downloading behavior, which, according to the obtained results has become embedded in their lives. Consequently, general statements that are addressed to the general public and are hard to find unless an individual looks specifically for them, do not have enough persuasive power.

Considering the fact that three out of four respondents in this study agreed with the statement that there was nothing wrong with the piracy, while more than a half of the people surveyed did not believe that the book piracy was a serious problem (Appendix 5), the information about the problem should be disseminated as widely as possible. Then, in a short and clear framing, the proof e.g. facts and figures that the piracy is actually damaging should be provided. Finally, the information should not be faceless: it should be the message to the particular reader from the particular author (the one whose book they read), because the story is more appealing if it has a face (Dobelli, 2015). However, to get the best results it is necessary to have a clear and coherent strategy that would adopt all the effective tools. To be able to accomplish this it makes sense to conduct a research focusing exclusively on the moral side of the piracy.

Social norms are another important leverage that, when applied carefully, could help to reduce piracy. Nowadays people find an atmosphere of the piracy approval in their closer circles

³ <https://eksmo.ru/news/1711594/>

⁴ <http://www.piratstvu.net/pisateli-o-piratstve/>

and it seems that they cannot imagine what will happen if everyone around them starts condemning illegal downloading. It is quite probable that it will make them to reduce or even refuse from their downloading activities, considering the fact that the economic expectations from piracy consequences in the model are slightly less influential than social ones. Still, it is not easy to accomplish. The already discussed dissemination of the information about the damaging and unpleasant consequences of the piracy should contribute to the consideration of illegal downloading as an immoral activity and, consequently, social condemnation.

There are, however, the pitfalls in the strategy that would raise the awareness about the negative consequences and ethical concerns of piracy. The most notable of them is that in this case people will really try to somehow justify their behavior. One important argument that they may come up with is that they do not want to spend the money on the book they might not like. Even now three out of four respondents of the study agreed with this statement (Appendix 5). This indicates the presence of the post decisional dissonance that is expressed in the fact that upon reading the purchased book, the consumer might start regretting its purchase, because it was not worth the amount of money he paid for it. Indeed, unlike with many other products that can be assessed before or during the purchasing process, the books cannot be fully evaluated before actual reading. Although the reviews and rankings might be useful, it is still not a guarantee that a particular individual will like a particular book. Hence, the business models adopting Pay-What-You-Want pricing strategy may be an option. This strategy is applied in many industries, but not by many players. An exception is probably the local tourism industry, where free walking tours that are based on the Pay-What-You-Want concept are gaining more popularity every year. As for the book trade, the eBookstore Openbooks.com⁵ was launched last year. Currently it proposes around 400 books for sale and is ready for cooperation with books authors.

Another possible justification argument is that the book prices are too high. Indeed, the economic concerns are an important outcome of the intentions to pirate, which means that the opportunity to get the desired book for free is very attractive to anyone. They cannot be neglected, and this leads to the question, whether it makes sense for publishers and book traders to reduce the prices or to organize promotions. The answer is negative. The price decrease alone will not help to stop piracy, since many users will still prefer to pay nothing for the books if there is a chance. Promotions, however, can be an option, because they can attract the completionists who otherwise

⁵ openbooks.com

would not buy books. When looking at the book sale, a completionist might take a chance to buy a book he or she would not buy or download otherwise.

One more expected outcome that influence digital piracy is the desire to access new books and new releases. In this case books industry has an advantage, compared, for example, with industries that sell movies or music. Unlike these products, books can exist in the non-digital format. What is more important, it is really long and annoying work for any owner of the book hard copy to convert it into the digital format. Therefore, it might be advisable for books producers to delay the release of the digital copies and to present only conventional paper books during the first period of sales. In these circumstances, however, it is important to consider the possible profit and loss balance. When releasing a potential best seller book the revenues from digital sales might compensate the piracy actions of the novelty seekers. Still, the restriction of the digital editions may help to reduce the potential piracy for this book from part of the novelty-seeking audience.

The influence of the habit, or how deeply the downloading behavior is embedded into the everyday life of the individual poses serious constraints on the way of combatting piracy: it is difficult to change a person's habit, especially if this person does not have any desire to it. The situations seems to be hopeless, but it is not that bad: the influence is indirect and it is connected to the intentions to pirate through the expected outcomes. This suggests that although the behavior is already established, it might still be sensible to the changes in the other types of incentives that motivate the downloading behavior, particularly novelty seeking, completionism, social and economic benefits. This means that companies should work in that direction and not to try to change the habits. Another implication is that the work with younger generations is important. They do not have yet that deeply embedded habit and are easier to influence that people who are used to downloading.

Summing this up, there is a number of ways to fight against the digital books piracy, as it follows from the model of factors influencing it. However, the complex approach is required, because the influence only on one source of the problem may be insufficient to reach significant results in reducing piracy. Moreover, there are numerous ways to implement thee introduced guidelines. It is crucial to adopt appropriate methods in each case, otherwise the efforts will not bring the desired results.

3.4 Summary

Table 3.1 summarizes the results of the analysis and the hypotheses that were tested within the framework of the constructed model.

H	Relationship	B-estimate	P (two-tailed)
H1a (+)	Perceived-Self-Efficacy → Perceived usefulness	0,16	p =0.019
H1b (-)	Perceived-Self-Efficacy → E-books usage	0,03	p =0.611
H1c (+)	Perceived-Self-Efficacy →Intentions to pirate	0,12	p =0.024
H2 (+)	E-books usage → Intentions to pirate	0,28	p <0.001
H3a (+)	Perceived usefulness → E-books usage	0,42	p <0.001
H3b (-)	Perceived usefulness → Intentions to pirate	-0,01	p =0.082
H4 (+)	Expected outcomes → Intentions to pirate	0.67	p <0.001
H4a (+)	Novelty compulsion → Expected outcomes	0.46	p <0.001
H4b (+)	Completionism → Expected outcomes	0.64	p <0.001
H4c (+)	Economic outcomes → Expected outcomes	0.49	p <0.001
H4d (+)	Social outcomes → Expected outcomes	0.58	p <0.001
H5 (-)	Deficient self-observation → Intentions to pirate	-0,07	p =0.219
H6a (-)	Descriptive norms → Intentions to pirate	--	--
H6b (-)	Descriptive norms → Social outcomes	--	--
H7 (-)	Moral Justification → Intentions to pirate	-0,08	p =0,180
H8 (-)	Knowledge of laws → Intentions to pirate	0,05	p =0.405

Table 3.1. The Hypotheses summary
Source: created by the author

In the discussion section the relationship, as well as the absence of the supposed relationship between the pairs of variables were explained. The absence of the moral justification construct is due to the small amount of moral claims about the piracy. The Intentions to pirate are directly influenced by the expected outcome from the downloading behavior, the actual usage of electronic book and by the ability to perform a book piracy. The latter connection is explained by

the necessity to have some skills and experience to find, download and install the books, while the usage of e-books provides the only quick and easy way to pirate the product.

The absence of connection between the self-efficacy and the usage of the e-books is ensured by the particular importance of the perceived usefulness of the e-books in the decision to use e-books, not conventional ones. Deficient self-observation has a relationship with many variables in the model: some of them, like Expected outcomes, e-book perceived usefulness and e-book usage are actually influenced by the habit and repetitive, because it contributes to the positive experience and the benefits the piracy can deliver to the consumer. The deficient self-observation itself is influenced by self-efficacy since for creation of any habit the ability to perform a particular behavior is required.

Additional connections are identified between the economic expectations and e-book perceived usefulness, social environment and self-efficacy, knowledge of laws and self-efficacy, completionism and novelty-seeking. The connection of the first pair is explained by the fact that the respondents unconsciously attribute the opportunity to pirate (to download free books) to the useful characteristics of the e-books. The second pair explanation is that in the social environment approves downloading and can provide help in the questions concerning overall pirating process problems. Those who are confident in their laws knowledge in the area of the digital rights protections, perceive the ability to download higher because of the knowledge about the absence of legal responsibility for their actions. Finally, the relationship in the last pair exists because the completionists are also novelty-seekers sometimes.

In the managerial implications section the guidelines for the reducing the books piracy were introduced. The first implication, though, concerns the consequences of the idleness in the process of piracy prevention: if no actions are against piracy are undertaken it is ought to increase. Other suggestions include technological, social and business approaches that could contribute to the solution of the digital piracy problem

As a technological element of anti-piracy actions an application of the Digital Rights Management was proposed. As a primary behavioral element the dissemination of the information about the damaging consequences of the illegal downloading and its unethical nature has to be implemented. These actions might influence the final consumers' perception of piracy either directly, through the moral obligation of the individual, or indirectly, through the influence on him

by more ethical aware the social circles. The development of the new business models is also one of the ways to reduce piracy rates. The particular example of these business models can be a e-book trader with the Pay-What-You-Want pricing strategy, which can contribute to the elimination of the post decisional dissonance of the potential customer. As for other price implications, it is not wise to decrease the books prices, because piracy will still provide consumers with free books. However, it makes sense to organize sales and promotions to push the impulsive completionists to the purchasing. It might also be helpful to delay the digital release of the new book, to prevent the piracy from the novelty-seekers.

Overall, although piracy is embedded into the everyday life of many people, it is still possible to change them, controlling the consumers' motives and proposing them a better value. The communication activities aimed at younger generations might help to prevent the rise of the pirating habit.

Conclusions

Digital piracy is one of the problems of the contemporary world that arose due to the development of the technologies. It is damaging for companies, industries and governments, yet difficult to eliminate. An important step to the understanding of this problem and, therefore, to the understanding of the possible ways to handle it, is the identification of the factors influencing the digital piracy behavior.

The factors that influence digital piracy behavior are numerous: some of them are related to the external environment, while others have roots in the individual's motives and desires. Cross-national studies, focusing on external factors, such as technological, economic, cultural, demographic and institutional, and demand-type models, exploring internal motives to pirate of each particular individual are two main groups of studies that aim to determine the factors of digital piracy. Within them, a number of different approaches based on the scientific models and theories is applied.

For the purpose of this research the mixed model, the combination of the approaches of both study types was adopted. Namely, it was based on the Technology Acceptance Model and Social Cognitive Theory. To reduce the scope of the research and make it more specific, it was decided to choose the books piracy as the object of the research because it is a topic largely uncovered in the scientific literature relatively to other products. In addition, the study particularly focused on Russian digital content consumers.

The following factors were found to have a direct significant effect on the intentions to engage in the e-books illegal downloading:

- expected outcomes from the downloading behavior, which include social and economic outcomes, novelty seeking, completionism and deficient self-observation
- the actual usage of electronic book
- the ability to perform an e-book piracy

The perceived usefulness of the electronic books and the perceived knowledge of laws were found to have an indirect effect on the e-books downloading. Moral justification, that was supposed to be one of the components influencing piracy, was not related to any other factor in the model, which indicated the absence of the moral claims about the downloading behavior.

Apart from the connections suggested before, the final model showed additional relationships between factors, such as the connections between the economic expectations and e-book perceived usefulness, social environment and self-efficacy, knowledge of laws and self-efficacy, completionism and novelty-seeking. . The connection of the first pair is explained by the fact that the respondents unconsciously attribute the opportunity to pirate (to download free books) to the useful characteristics of the e-books. The second pair explanation is that in the social environment approves downloading and can provide help in the questions concerning overall pirating process problems. Those who are confident in their laws knowledge in the area of the digital rights protections, perceive the ability to download higher because of the knowledge about the absence of legal responsibility for their actions. Finally, the relationship in the last pair exists because the completionists can be targeted on the new releases as well.

The identification of the described factors and relationships between them are important, because they provide the industries and companies that face the problem of the digital piracy with possible directions to deal with this problem. Consequently, following the results of this research and the factors identified in it, a set of correspondent recommendations was developed. The recommendations propose technological, social and business approaches that could contribute to the solution of the digital piracy problem. They are mainly applicable for the area of the e-book piracy, but some of them can be adopted to the needs of other industries as well.

As a technological element of anti-piracy actions an application of the Digital Rights Management was proposed. The application of technological or social DRMs will make it more difficult to illegally distribute the purchased e-books. However, this is not an absolute solution, but rather one element of it.

The social approach includes the dissemination of the information about the damaging consequences of the illegal downloading and its unethical nature and the anti-piracy campaigns aimed at younger generations.

As for the business tools to reduce the e-book piracy levels, the following recommendations were proposed:

- The development of the new business models employing Pay-What-You-Want pricing strategy
- The avoidance of the constant price decrease as the tool to reduce piracy

- The organization of the books sales and promotions
- The delay of the books digital copies release compared to the conventional books release

Due to the limitations and the scope of this thesis as well as due to the findings obtained within it, there is a number of research questions that are yet to be answered and, thus, they may become a topic of the new studies. One of them is the question about the perception of the morality and ethics of the illegal downloading activities. Although there are numerous researches that apply ethics theory, they use mainly quantitative techniques for model development, while a qualitative research could be more fruitful in this situation. It is necessary to get the insights about how people perceive the downloading activities and what are the reasons to not to consider them unethical. The experiments to identify the reaction of consumers to the different anti-piracy techniques that would spread an awareness about the scale of the problem will also be a valuable contribute to the research in the field of the illegal downloading.

To conclude, during the course of this master thesis the factors influencing books piracy in Russia were identified, their nature and the relationship between them were discussed and, finally the recommendations concerning the actions that would lead to the reduce of the books digital piracy were developed.

List of references

1. Arli, D., Tjiptono, F., & Porto, R. (2015). The impact of moral equity, relativism and attitude on individuals' digital piracy behavior in a developing country. *Marketing Intelligence and Planning*, 33 (3) pp. 348-365. Retrieved from <http://sciencedirect.com>
2. Belleflamme, P., & Peitz, M. (2014). Digital piracy: Theory. CESifo working paper: Industrial Organization, No. 3222. Retrieved from <http://sciencedirect.com>
3. Blankfield, S., & Stevenson, I. (2012). Towards a digital spine: The technological methods that UK and US publishers are using to tackle the growing challenge of e-book piracy. *Publishing research quarterly*, 28 (2), pp. 79 – 92. Retrieved from <https://www.springer.com>
4. Brown, S., & MacDonald, R. (2013). Predictive factors of music piracy: an exploration of personality using HEXACO PI-R. *Musicae Scientiae*, 18 (1), pp. 53 – 64. Retrieved from <https://www.sage.com>
5. Burke, A. (1996). How effective are international copyright conventions in the music industry? *Journal of Cultural economics*, 20, pp. 51 – 66. Retrieved from <https://www.springer.com>
6. Camarero, C., Anton, C., & Rodriguez, J. (2014). Technological and ethical antecedents of the e-book piracy and price acceptance. *The electronic library*, 32 (4) pp. 542-566. Retrieved from <http://sciencedirect.com>
7. Cox, J., & Collins, A. (2014). Sailing the same ship? The differences in factors motivating piracy of music and movie content. *Journal of Behavioral and Experimental Economics*, 50, pp. 70 – 76. Retrieved from <http://sciencedirect.com>
8. Cronan, T., & Al-Rafee, S. (2008). Factors that influence the intention to pirate software and media. *Journal of Business Ethics* 78 (4), pp. 527-545. Retrieved from <https://www.springer.com>
9. Depoorter B. (2014). Law and Technology: What happened to a video game piracy? *Communications of the ACM*, 57 (5) pp. 33-34. Retrieved from <http://sciencedirect.com>
10. Dobelli, R. (2015). The Art of Thinking Clearly. *PTS Publications & Distributors Sdn Bhd*
11. Douglas, D., Cronan, T., & Behel, J. (2007). Equity perceptions as a deterrent to software piracy behavior. *Information and Management*, 44 (5) pp. 503-512. Retrieved from <http://sciencedirect.com>
12. Farrell, A. M., & Rudd, J.M. (2007). Factor analysis and discriminant validity: A brief review of some practical issues. In D. Tojib (Ed.), *ANZMAC 2009 conference proceedings*. ANZMAC. Retrieved from <https://www.researchgate.net>

13. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, pp. 39 – 50. Retrieved from <https://www.springer.com>
14. Glass, R., & Wood, W. (2009). Situational Determinants of software piracy: an equity theory perspective. *Journal of Business Ethics*, 15 (11), pp. 1189 – 1198. Retrieved from <https://www.springer.com>
15. Goel, R., & Nelson, M. (2009). Determinants of software piracy: economics, institutions, technology. *The Journal of Technology Transfer*, 34 (6), pp. 637 – 658. Retrieved from <https://www.springer.com>
16. Goode, S. (2012). Initial findings of a gap analysis of the digital piracy literature: six undiscovered countries. *Journal of Research in Interactive marketing*, 6 (4), pp. 238 – 259. Retrieved from <http://sciencedirect.com>
17. Gopal, R., et al (2009). A behavioral model of digital piracy. *Journal of organizational computing and electronic commerce*, 14 (2) pp. 89-105. Retrieved from <https://www.researchgate.net>
18. Higgins, G., Wilson, A., & Fell, B. (2005). An application of deterrence theory to software piracy. *Journal of criminal justice and popular culture*, 12 (3) pp. 166-184. Retrieved from <https://citeseer.com>
19. Husted, B. (2012). The impact of national culture on software piracy. *Journal of Business Ethics*, 26 (3), pp. 197 – 211. Retrieved from <https://www.springer.com>
20. Jackman, M., & Lorde, T. (2014). Why buy when we can pirate? The role of intentions and willingness to pay in predicting piracy behavior. *International journal of social economics*, 41 (9), pp. 801 – 819. Retrieved from <http://sciencedirect.com>
21. Jacobs, R.S., Heuvelman, A., Tan, M., & Peters, O. (2012). Digital movie piracy: a perspective on downloading behavior through social cognitive theory. *Computers in Human Behavior*, 28, pp. 958 – 967. Retrieved from <http://sciencedirect.com>
22. Janssens, W., De Pelsmacker, P., & Van Kenhove, P. (2008). Marketing research with SPSS. *Pearson Education*
23. Krawczyk, M., Tyrowicz, J., Kukla-Gryz, A., & Hardy, W. (2014). “Piracy is not theft!” Is it just students who think so? *Journal of Behavioral and Experimental Economics*, 54, pp. 32 -39. Retrieved from <https://www.springer.com>
24. LaRose, R., Lai, Y., Lange, R., & al. (2005). Sharing or Piracy? An Exploration of Downloading Behavior. *Journal of Computer-Mediated Communication*, 11 (1), 1-22.pp. 334 – 341. Retrieved from <http://onlinelibrary.wiley.com/>

25. LaRose, R., & Kim, J. (2007). Share, Steal or Buy? A social cognitive perspective on music downloading. *CyberPsychology & Behavior*, 10 (2), 267-277. Retrieved from <https://www.researchgate.net>
26. Logsdon, J., Thompson, J., & Reid, R. (1994). Software piracy: is it related to the level of moral judgment? *Journal of business ethics*, 13 (11) pp. 849-857. Retrieved from <https://www.springer.com>
27. Malin, J., & Fowers, B. (2009). Adolescent self-control and music and movie piracy. *Computers in Human Behavior*, 25 (3), pp. 718 – 722. Retrieved from <https://www.elsevier.com>
28. Moores, T., Nill, A., & Rothenberger, M.(2009). Knowledge of the software piracy as an antecedent to reducing pirating behavior. *Journal of Computer Information Systems*, 50 (1) pp. 82-89. Retrieved from <https://www.ebscohost.com>
29. Papadopoulos, T. (2003). Determinants of international sound recording piracy. *Economics Bulletin*, 6, (10), pp. 1 – 9. Retrieved from <http://accessecon.com/>
30. Ramayah, T., Chin, L., & Ahmad, N. (2008). Internet piracy among students: An application of Triandis model. *International Journal of business management and science*, 1 (1) pp. 85-95. Retrieved from <https://www.springer.com>
31. Robertson, K., McNeil, L., Green, J., & Roberts, C. (2012). Illegal downloading, ethical concern, and Illegal behavior. *Journal of Business Ethics*, 108, (2), pp. 215 – 227. Retrieved from <https://www.springer.com>
32. Shin, S., Gopal, R., Sanders, G., & Whinston, A. (2004). Global Software piracy revisited. *Communications of the ACM*, 47 (1), pp. 958 – 967. Retrieved from <https://www.researchgate.net>
33. Shore, B., & al. (2001). Softlifting and piracy: behavior across cultures. *Technology in society*, 23, pp. 563 – 581. Retrieved from <http://sciencedirect.com>
34. Siponen, M., Vance, A., & Willison, R. (2012). New insights into the problem of software piracy: The effects of neutralization, shame and moral beliefs. *Information and Management*, 49, pp. 334 – 341. Retrieved from <http://sciencedirect.com>
35. Suki, N., Ramayah, T., & Suki, N. (2011). Understanding consumer intention with respect to purchase and use of pirated software. *Information management and computer security*, 19 (3) pp. 195-210. Retrieved from <http://sciencedirect.com>
36. Taylor, S., Ishida, S., & Wallace, D. (2009). Intentions to engage in digital piracy. A conceptual model and empirical test. *Journal of service reserach*, 11 (3) pp. 246-262. Retrieved from <https://www.springer.com>

37. Wulandari, H. (2014). Economy and technology as influential factors for digital piracy sustainability: an Indonesian case. *Procedia – Social and Behavioral Sciences*, 164, pp. 112 – 117. Retrieved from <http://sciencedirect.com>
38. Yoo, S., Sanders, G., Rhee, S., & Choe, Y. (2014). The effect of deterrence policy in software piracy cross-cultural analysis between Korea and Vietnam. *Information Development*, 30 (4), pp. 342 – 357. Retrieved from <https://sage.com>

Appendix

Appendix 1. The questionnaire.

1. How many books on average do you read per month (including academic books)?
2. How many books on average do you download each month? (including academic books)
3. How many books did you buy last month?

The use of the reading devices

I have a special e-book reader (yes/no)

I read books on my mobile phone or tablet (yes/no)

I read books on my computer (yes/no)

How many of the books you read are e-books? (0-20%, 21-40%, 41-60%, 61-80%, 81-100%)

Intentions to engage Intentions

- 4.1 I will download more this month than last month.
- 4.2 I will Offer files on my computer for others to share.
- 4.3 I will buy books (electronic or hard copies) next month
- 4.4 Next month I plan to download book

Self-Efficacy

- 5.1 I am good at downloading books
- 5.2 I know how to avoid spy ware and viruses when I download
- 5.3. I know all of the tricks and traps of file sharing.
- 5.4 I can usually find the books I am looking for
- 5.5 When I am downloading books I do not have to think about how to do it
- 5.6 I know how to install books on the e-reader or other electronic device
- 5.7 *I am capable of finding the formats I need or in converting them*
- 5.81 *I can always ask someone download the book I need*

E-book Perceived Usefulness

- 6.1 Having books in electronic format is useful and convenient
- 6.2 I think that electronic books offer advantages over conventional books

E-book Reader use

- 7.1 Of all the books you read, what percentage do you read on the e-reader/tablet?
- 7.2 I have a specially purchased e-reader (yes/no)
- 7.3 *I read e-books on my phone or on the tablet (yes/no)*
- 7.4 *I read books on my computer (yes/no)*

Deficient Self-Regulation

- 8.1 *If I want to read a book, I first think about downloading it rather than buying*
- 8.2 I sometimes download files without actually considering it
- 8.3 Downloading is a habit I have gotten into
- 8.4 I get upset when circumstances like a bad connection stop me from downloading
- 8.5 I often download more or less the same amount of books every month/week, even when I cannot find books I really want to read

Knowledge of laws

9.1 Knowledge of laws attitude

9.1.1. I follow the developments around lawsuits concerning the downloading (e.g. RuTracker, etc)

9.1.2. I am aware of the Russian laws surrounding the topic of downloading movies

9.2 Knowledge of laws (objective)

Knowledge question 1: Downloading legality (correct: true/false/I Don't know)

Knowledge question 2: Uploading legality (correct: true/false/I don't know)

Moral justification

10.1 It's up to the publishing industry responsibility to prevent piracy, not me.

10.2 Everyone else is downloading books, it's OK for me to do it.

10.3 There is nothing wrong with file sharing

10.4 Book piracy is not a serious problem

10.5 *I don't want to pay for the book that I might dislike*

10.6 *I would be ready to give some money directly for the author if I had an opportunity*

10.7 *I allow myself download all the books I want*

Descriptive norms

11.1 *I know a lot of people who download more than I do*

11.2 *I download fewer books than the average person*

Social outcomes

12.1 Among my friends, downloading a lot of books is considered normal behavior

12.2 If my friends or family would disapprove of me downloading books, I would probably do it less

12.3 I feel connected to a downloading community (torrent forums and other similar sites)

12.4 I often discuss with my friends books that we download

12.5 I often download books following the recommendations of friends

Novelty seeking

13.1 By downloading, I learn about new genres or authors that I enjoy

13.2 I prefer reading newly published books as soon as possible

13.3 When hearing about the books I have not read yet, I am usually eager to download them

Economic outcomes

14.1 When downloading, I can save a lot of money

14.2 I read a lot more books now than I would if I was not able to download them

14.3 If I were to buy the books I currently download it would be too expensive for me

Completionism

15.1 By downloading, I can find rare books

15.2 I would love to download all of the good books

15.3 I try to keep good books I have downloaded and read for as long as possible

15.4 I want to have read as much books as possible

15.5 Sometimes, it takes a while for me to find a book to download that I have not read before

Demographic information

17. Your city of residence

18. Your gender (m/f)

19. The level of education (secondary uncompleted, special secondary, secondary completed, higher education)

20. How do you assess the level of your family income? (very good, good, average, bad, very bad)

21. Your age (less than 14; 14-19; 20-29; 30-39; 40-49; 50-50; 60-69)

Appendix 2. Items used in the survey

Construct	Measurement scales	Mean	SD	Loading
Self-efficacy $\alpha = 0,85$ $\rho = 0,87$ AVE= 0,61	I am good at downloading books	5,9	1,49	0,89
	I know how to avoid spy ware and viruses when I download	5,0	1,96	0,75
	I can usually find the books I am looking for	5,69	1,41	0,82
	When I am downloading books I do not have to think about how to do it	5,47	1,56	0,62
	I know how to install books on the e-reader or other electronic device	6,2	1,4	0,75
	I am capable of finding the formats I need or in converting them	5,42	1,76	0,75
	<i>I can always ask someone download the book I need (excluded from further analysis)</i>			
Perceived Usefulness $\alpha = 0,72$ $\rho = 0,75$ AVE= 0,6	Having books in electronic format is useful and convenient	5,54	1,47	0,89
	I think that electronic books offer advantages over conventional books	4,35	1,72	0,89
Moral Justification $\alpha = 0,83$ $\rho = 0,84$ AVE= 0,52	It's up to the publishing industry responsibility to prevent piracy, not me.	4,96	1,96	0,77
	Everyone else is downloading books, it's OK for me to do it.	5,42	1,84	0,78
	There is nothing wrong with file sharing	5,46	1,76	0,86
	Book piracy is not a serious problem	5,11	1,78	0,79
	I don't want to pay for the book that I might dislike	5,31	1,88	0,75
	<i>I would be ready to give some money directly for the author if I had an opportunity (excluded from further analysis)</i>			
	<i>I allow myself download all the books I want</i>			
Deficient Self-Observation $\rho = 0,76$ AVE= 0,62	<i>If I want to read a book, I first think about downloading it rather than buying (excluded from further analysis)</i>			
	I sometimes download files without actually considering it	4,91	2,18	0,79
	Downloading is a habit I have gotten into	5,6	1,88	0,67
Deficient Self-Reaction $\rho = 0,57$ AVE= 0,31	<i>I get upset when circumstances like a bad connection stop me from downloading (excluded from further analysis)</i>	4,87	1,86	0,8
	<i>I often download more or less the same amount of books every month/week, even when I cannot find books I really want to read (excluded from further analysis)</i>	3,47	1,88	0,71

Descriptive norms $\rho = 0,51$ AVE= 0,35	I know a lot of people who download more than I do	4,51	1,98	0,81
	I download fewer books than the average person	3,83	3,84	0,81
Social outcomes $\alpha = 0,71$ $\rho = 0,80$ AVE= 0,67	Among my friends, downloading a lot of books is considered normal behavior	5,39	1,55	0,66
	<i>If my friends or family would disapprove of me downloading books, I would probably do it less (excluded from further analysis)</i>			
	<i>I feel connected to a downloading community (torrent forums and other similar sites) (excluded from further analysis)</i>			
	I often discuss with my friends books that we download	3,54	2,05	0,83
	I often download books following the recommendations of friends	3,88	1,93	0,83
Novelty seeking $\alpha = 0,66$ $\rho = 0,71$ AVE= 0,57	By downloading, I learn about new genres or authors that I enjoy	4,34	2,1	0,77
	I prefer reading newly published books as soon as possible	2,71	1,74	0,71
	When hearing about the books I have not read yet, I am usually eager to download them	3,88	1,97	0,83
Economic Outcomes $\alpha = 0,72$ $\rho = 0,65$ AVE= 0,49	When downloading, I can save a lot of money	5,96	1,8	0,72
	I read a lot more books now than I would if I was not able to download them	4,64	2,36	0,81
	If I were to buy the books I currently download it would be too expensive for me	5,45	1,96	0,88
Completionism $\alpha = 0,7$ $\rho = 0,7$ AVE= 0,46	<i>By downloading, I can find rare books (excluded from further analysis)</i>			
	I would love to download all of the good books	4,63	2,19	0,84
	I try to keep good books I have downloaded and read for as long as possible	5,2	2,03	0,64
	I want to have read as much books as possible <i>Sometimes, it takes a while for me to find a book to download that I have not read before (excluded from further analysis)</i>	5,89	1,53	0,73
Intentions $\alpha = 0,64$ $\rho = 0,68$ AVE= 0,53	I will download more this month than last month.	3,11	1,61	0,86
	<i>I will Offer files on my computer for others to share (excluded from further analysis)</i> Next month I plan to download books	5,11	2,19	0,86

Appendix 3. The covariance matrix

Standardized Residual Covariances (Group number 1 - Default model)

	Social	Self_Efficacy	DSO	Economic	PU	Usage	C	NS	Laws	Int
Social	,000									
Self_Efficacy	,000	,000								
DSO	,539	-,135	-,052							
Economic	-,056	-,298	,280	,000						
PU	,856	-,116	,013	,059	,000					
Usage	1,328	-,296	-,013	1,381	,004	-,002				
Completionism	-,382	-1,018	-,873	,780	-1,420	,741	,000			
Novelty	-,114	,416	-,081	-,098	-,626	,879	,000	,000		
Laws	,390	,000	-,048	-1,120	1,084	-1,111	-,468	,667	,000	
Int	,209	-,223	-,065	-,105	-,186	,523	,382	,449	,368	,206

Appendix 4. The squared multiple correlation coefficients

	Estimate
Social Outcomes	,337
Self_Efficacy	,048
Deficient Self Observation	,519
Economic Outcomes	,240
Perceived Usefulness of e-books	,323
The usage of the e-books	,375
Completionism	,405
Novelty Seeking	,480
Knowledge of Laws	,092
Intentions to pirate	,693

Appendix 5. The frequency statistics of selected variables

Variables	Mean	St. dev.	Frequencies		
			1-3	4	5-7
There is nothing wrong with file sharing	5,49	1,7	14%	6%	80%
Book piracy is not a serious problem	5	1,8	20%	19%	61%
Among my friends, downloading a lot of books is considered normal behavior	5,5	1,74	14%	25%	61%
If my friends or family would disapprove of me downloading books, I would probably do it less	2,48	1,75	75%	10%	15%
I don't want to pay for the book that I might dislike	5,28	1,9	18%	11%	71%
I allow myself download all the books I want	5,5	1,7	13%	23%	64%
I would be ready to give some money directly for the author if I had an opportunity	5,41	1,49	17%	11%	72%