NEW TRENDS AND PERSPECTIVES IN THE MONEY LAUNDERING PROCESS

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Abstract

Due to its complexity, the crime of money laundering can be committed through a variety of methods which are in a constantly evolving. It seems that money launderers are always one step ahead of authorities. They find new and various ways to launder the proceeds of crime despite the efforts of the law enforcement authorities to develop the best tools to stop or at least to make difficult the criminal activity of money laundering. This study aims to analyze the latest money laundering typologies approaching online payment systems, virtual casinos, electronic auctions and Internet gambling.

Keywords: Money laundering, money laundering typologies, online payments systems, online casinos, virtual games

Introduction

The advantages of electronics and the Internet, that is hiding the true identity, the possibility to operate quickly, anywhere and anytime, the countless transactions and digital identities, are unfortunately vulnerable to the complex operations of money laundering process, unable to remain unexploited to criminals.

This study proposes an analysis of the vulnerability of new technologies in the face of the financial criminals, in terms of money laundering crime, the focus being on the role of electronic payment systems, casinos, virtual games and other gambling activities in order to achieve different stages of money laundering.

Far from being over and clarified, the new typologies of money laundering connected to modern reality technology have been and still are a subject to research both in international¹ and national² literature.

The usage of new methods of payment for money laundering is monitored in the Annual reports on various money laundering typologies by the International Financial Action Task Force

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² ONPCSB, Manual de instruire privind combaterea spălării banilor și finanțarea actelor de terorism, (Bucharest Published by C.N. Imprimeria Națională S.A., 2010); Camelia, Bogdan, Spălarea Banilor, Aspecte teoretice și de practică judiciară, (Bucharest, Universul Juridic Publishing House, 2010); Dan Vasilache, Plăți electronice. O introducere, (Bucharest, Rosseti Educațional Publishing House, 2004).

(FATF).³ The FAFT reports on the new methods of payment used by money launderers from 2002 to 2010 represent the starting point of this study.⁴

The importance of understanding the mode of operating of the financial criminals who use the benefits of present technology to carry out the criminal intentions contributes undoubtedly to the efficient and effective fight against money laundering.

International, European And National Concerns In Matters Of Money Laundering

In terms of the concerns registered at international, European and national level in matters of money laundering and in point of defining the offense, we can mention the following documents:

- The United Nations' Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances,⁵ adopted on 19 December 1988, Vienna, defines this process as: the intention of concealing the origin, nature, disposition, the movement, or the owner of funds that come from illicit drug trafficking, including the movement or conversion by electronic transmission processes, in order to give the appearance that these funds are derived from legal activities.⁶

- The Council of Europe Convention on Laundering, Search, Seizure and Confiscation of the proceeds from crime,⁷ in article 6, defines money laundering as: processing and transfer of property of which the one who used them knew that they are proceeds of crime, in order to conceal or disguise the illicit origin of goods or for helping any person involved in committing the major crime to escape the legal consequences of his action; concealment and disguise of the nature, origin, location, disposition, movement or real ownership of property or the rights thereof, which the owner knew that the products are proceeds of crime; purchasing, procurement and use of goods, which the person who acquired, hold or used them, knew, at the moment of receiving products, that are proceeds of crime; participation in one of the offenses set out previously or any other form of association, attempt, or complicity by providing assistance or advice in order to commit the crime.

- The UN Convention against transnational organized crime,⁸ uses both terms laundering of proceeds of crime and money laundering. Thus, **article 6** of the Convention called *Incrimination of laundering of proceeds of crime*, calls on states to adopt the fundamental principles of its internal law, legislative and other measures necessary to establish the offense, when the act was committed intentionally:

a) (i) change or transfer of property to the one who knows that they come from crime, for the purpose of concealing or disguising the illicit origin of the property or of helping any person involved in committing the offense to evade from the legal consequences of his acts;

(ii) The concealment or disguise of the true nature, source, location, disposition, movement or ownership of property or other related rights, whose perpetrator knows that they are proceeds of crime;

³ FATF is the intergovernmental body that aims at developing and promoting national and international policies to combat money laundering and terrorism financing.

⁴ FAFT, Money Laundering Using New Payment Methods, (Paris, FATF/OECD, 2002); FAFT, Report of New Payments Methods, (Paris, FAFT/OECD, 2010).

⁵ Opened for signature on 20 December 1988 in the framework of the sixth Plenary Session of the UN Conference in Vienna on Psychotropic Substances. Romania acceded to the Convention by Law no. 118 of 15 December 1992, published in Official Monitor of Romania, Part I, no. 341 of December 30, 1992.

⁶ Article 3, letter b), c).

⁷ Ratified by Romania by Law no. 263/2002, published in the Official Monitor of Romania no. 353 of May 28, 2002.

⁸ Ratified by Romania by Law no. 565 / 2002 and published in Official Monitor of Romania no. 813/8.11.2002. Romania has signed on 14 December 2000 in Palermo, the United Nations Convention against Transnational Organized Crime and its two protocols adopted in New York, 15 November 2000: 1. Protocol on preventing, suppressing and punishing trafficking of persons, especially women and children, supplementing the United Nations Convention against Transnational Organized Crime; 2. Protocol against the smuggling of migrants by land, sea, and air, supplementing the United Nations Convention against Transnational Organized Crime; 2.

b) and subject to the basic concepts of its legal system:

(i) the acquisition, possession or use of property which the one who purchases, possesses or uses them, knows, at the moment of the receive, that they are proceeds of crime;

(ii) participation in one of the offenses provided for under this article or any other association, understanding, attempt or complicity by assistance, help or advice in order to commit it.

According to *European Union Directives:*⁹ "Money laundering" means the following actions, when committed intentionally: a) the conversion or transfer of property, knowing that such property is derived from criminal activity or an act of participation in such activity, in order to conceal or disguise the illicit origin of property or to support any person involved in the commission of such activity in order to evade the legal consequences of his actions; b) the concealment or disguise of the nature, source, location, disposition, movement, the real rights on their property or possession, knowing that such property is derived from criminal activity; c) the acquisition, possession or use of property, knowing, at the time of receipt, that such property originates from a criminal activity or from an act of participation in such activity; d) participation, association, attempt to commit and aiding, abetting, facilitating, counselling in order to commit any of the actions mentioned in the previous paragraphs.

At national level,¹⁰ the **Law no. 656 / 2002** for the prevention and punishment of money laundering, and instituting some measures to prevent and combat financing acts of terrorism,¹¹ regulates in article 23 the crime of money laundering, as follows: (1) The crime of money laundering is punished with imprisonment from 3-12 years: a) change or transfer of property, knowing that they come from committing crimes, in order to conceal or disguise the illicit origin of property or in order to help the person who committed the offense from whom the goods come from, to evade prosecution, trial or execution of sentence; b) the concealment or disguise of the true nature, source, location, disposition, movement or ownership or rights over their property, knowing that they come from committing crimes; c) the acquisition, possession or use of property, knowing that they come from crime."

FATF defines money laundering as the *de facto* financial part of all crimes through which the profit is gained. It is the process by which criminals attempt to conceal the origin and the actual possession of their income that comes from criminal activities.

The Stages Of Money Laundering

Money laundering is a complex process achieved, usually in the traditional scheme of the three stages, namely: *placement, layering, and integration*. The complexity of money laundering process is given by different techniques chosen by the perpetrator.¹²

The *placement* consists of the offender's attempt to bring illegal money in the financial system, involving the physical movement of money, in order to put a distance between them and the illicit source of funds, avoiding their confiscation. The introduction of illegal profits in the financial

⁹ Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering and the Directive 2001/97/EC of 4 December 2001. These Directives have been repealed by the Directive 2005/60 EC of the European Parliament and of the Council on prevention of the use of the financial system for the purpose of money laundering and terrorist financing.

¹⁰ Prevention and punishment of money laundering were initially regulated by Law no. 21/1999 on preventing and sanctioning money laundering, published in Official Monitor of Romania, Part I, no. 18 of January 21, 1999, repealed in the article 31 of the Law no. 656 / 2002.

¹¹ Published in the Official Monitor of Romania no. 204 of December 12, 2002, as amended and supplemented by GEO no. 53/2008 regarding the amendment of Law no. 656/2002 on preventing and sanctioning money laundering and instituting measures to prevent and fight against terrorism financing, published in Official Monitor Part I, no. 333 of April 30, 2008, and **GEO no. 26/2010** for amending and supplementing GEO no. 99/2006 on credit institutions and capital adequacy and other normative acts, published in Official Monitor or Romania no. 208 of April 1, 2010.

¹² Camelia, Bogdan, Spălarea, p. 87 – 138.

system can be done by splitting the cash in smaller amounts (below the minimum reporting threshold). In this stage, online payment systems present a risk in terms of customers' anonymity, rendering difficult monitoring the transactions that form the channel for dirty money, because of the possibility of customers' multiple registration, detecting the source of the money due to used payment instruments.¹³

Layering is the movement of money between different accounts, in order to hide their source. In other words, criminals want to erase any connection between the illicit source and the money. At this stage, money launderers resort to transforming the cash placed in various instruments of payment (checks, promissory exchange) or purchase real estate.

Referring to the two phases of money laundering, Aaron Elkins exemplifies the hypothesis of dividing the illicit cash in more checks, then transmitted electronically from the A account of Bank 1 to B account in Bank 2, dividing and recombining so that illegal origins of the cash will be lost somewhere in cyberspace.¹⁴

Speed, the sheer volume, and the international feature of electronic transactions are likely to prevent authorities to investigate money laundering at this stage.

The *integration* of whitening capital in the economic and financial circuit is the final stage of money laundering. It is the objective pursued by criminals, to have a legal façade to the illegally obtained income. Specific to this stage is the purchase, by money launderers through the commercial website, of some valuable items, precious metals, real estate, and for their payment they use electronic systems.

The stages of money laundering can exist separately, simultaneously or may overlap, their achievement depends on the existing ways of laundering and criminal organizations requirements.

Specific Techniques Of Money Laundering Stages

Each stage of money laundering has specific techniques used by criminals such as:

For the *placement* stage criminals resort to techniques such as: cash smuggling, currency conversion tools or values, the banks' aid and abet, structuring funds, the introduction of illegal funds in lawful money, money transfer systems, Internet and casinos.¹⁵ In the virtual world, money launderers can overcome the placement stage, because the money (or other values) is already in the electronic form.¹⁶

The most common techniques used by launderers during layering stage are: stock and holding companies, sale of shares purchased with cash, numerous electronic transfers, shell offshore companies.¹⁷

The most important stage of money laundering, *the integration*, is carried out mostly by: loan - back schemes, real estate purchases, ghost commercial transactions, fake import-export documents, legitimate business and credit cards.¹⁸

Synchronization Of Money Laundering Techniques With Technological Developments

Putting cash into the financial system, moving it to other destinations across the border, and transfer cash into and from the financial system, these are vulnerable steps to money launderers in terms of the risk of being detected.

The evolution of technology and cyberspace enables criminals to easily overcome these obstacles, money launderers are increasingly resorting to the use of virtual platforms and electronic

¹³ FAFT, Money Laundering Using New Payment Methods, FATF/OECD, Paris, 2002, p. 23.

¹⁴ Elkins, A., Twenty, p. 208.

¹⁵ ONPCSB, *Manual de instruire privind combaterea spălării banilor și finanțarea actelor de terorism*, printed by C.N. Imprimeria Națională S.A., Bucharest, 2010, p. 33.

¹⁶ Wojciech Filipkowski, *Cyberlaundering: An Analysis*, p. 15 – 27.

¹⁷ ONPCSB, Manual, p. 34.

¹⁸ ONPCSB, Manual, p. 35.

payment systems; these technological tools enable them to control the illicit funds, to conceal the origin of the illicit funds and the identity of persons involved in criminal activity and ultimately to benefit from these illegally obtained funds.

In the following we will analyze the latest tendencies of offenders in achieving money laundering, tendencies that are always "updated" and adapted to the technological evolution.

Electronic Payment Systems

Electronic payments are actual payments from commercial activities or transfers of funds from commercial or non-commercial activities, and they are achieved by electronic means (computers - from the type of personal PC to the complex server systems and telecommunications).¹⁹

According to the *European Parliament* and *Council Directive no. 2009 / 110 / EC* concerning the access to activity, pursuit and prudential supervision of the activity of the institutions' issuers of electronic money, amending *Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC*: *"electronic money" means any monetary value stored electronically, including magnetic, representing a claim on the issuer which is issued upon receipt of funds for the purpose of making payment transactions as defined in article 4, section 5 of Directive 2007/64/EC²⁰ and it is accepted by a person or entity other than the issuer of electronic money.*²¹

Compared to traditional off-line payment systems, the on-line payments have the advantage to purchase goods or services without using cash or complete checks.

The main electronic payment instruments are: cards, electronic money and electronic wallet.

The parties involved in e-cash system are: the issuing bank of electronic money, the customer (payer) and the dealer.²²

The best known techniques used by money launderers in the electronic payment systems are the electronic transfers (using a false identity, trading money through offshore companies); investing the electronic money into financial products (bank checks, bonds and shares) or in virtual gold. The role of electronic payment systems is very well defined in money laundering matters in relation to companies, there are the transfers via SWIFT.

In the *Report of New Payments Methods*, in October 2010, FAFT does not include in the electronic payment systems category the mobile prepaid cards, having rather the feature of intermediary value reserve.²³

Most online payment systems (transfer, mobile payment systems) are used by money launderers in the layering stage, when carrying out transactions between different accounts, countries or people.²⁴ For the placement stage of money, criminals are using prepaid cards.²⁵

The advantages of these payment systems are very attractive to criminals. Thus, due to the mobility of electronic payment systems, there can be instantaneously achieved transfers in a network that is not subject to any jurisdictional restrictions, the cash can be stored in an unregulated financial institution.²⁶ The amounts stored on a card or a personal computer may not always be controlled by the competent authorities; the Internet and electronic systems facilitate fund transfer and ensure anonymity through some encryption techniques, etc.

¹⁹ Dan Vasilache, *Plăți*, 2004, p. 40.

²⁰ Directive 2007/68/EC refers to payment services in the internal market.

²¹ Article 2, line 2.

²² Rolf Oppliger, Security Technologies for the World Wide Web, Artech House, 2002, p. 225.

²³ FAFT, Report of New Payments Methods, FAFT/ OECD, Paris, 2010, p. 14.

²⁴ Lech Janczewski and Andrew M. Colarik, *Cyber*, p. 143.

²⁵ Ibidem.

²⁶ Commonwealth Secretariat, *Combating*, p. 45.

Virtual Casinos And Gambling

Gambling is a bet on a sum of money or something of material value in a situation with uncertain outcome, mainly aimed at winning the money and / or additional material goods. In the gaming category there are included: gambling services, lotteries, casinos and mobile or on the Internet gambling, etc.

The huge gains resulted from the gambling practice organized in casinos, which are apparently legitimate and justifiable earnings for the existing currency in this industry, have created, with good reason, the suspicion of the existence of money laundering in the casino business.²⁷

Thus, the appearance of legality of illicit proceeds and transfer of such amounts can be achieved also through casinos.

Virtual casino sites offer visitors the experience of real casino games.²⁸

Casinos may have a series of transactions similar to financial institutions, according to Directive 2001/97/EC, in the category of entities required to report suspicious transactions are included also the casinos, all customers are required to identify themselves when selling, or buying gambling chips, whose value exceeds the sum of 1000 Euro.

To access the games on the virtual casino's website, there must be created an account on the website, download the gamming software and use a credit card or electronic funds transfer service to cover the bets and gambling earnings.

Money launderers can speculate the possibility that the virtual casino websites offer, asking them to send money coming from illicit sources in the accounts they open on these websites, justifying the origin of money obtained from gaming winnings.²⁹

International Financial Action Group, in the Report on Casinos' Vulnerabilities and other gambling activities, listed a series of methods and techniques used for money laundering through casinos - the usage of casinos' value instruments (cash, casino chips, game machines credit, gift certificates); refining or structuring; use of casino accounts - credit accounts, markers, operating foreign accounts; intentional losses or gains; aiding and abetting employees (e.g. the falsification by the casino employees of assessments and other records that refer to the player in order to justify the accumulation of chips or of credits from game machines), foreign exchange, credit cards (for example, laundering of the proceeds from a stolen card) - or debit cards, false documents, etc.³⁰

The value tools of the casinos are used often by money launderers in converting the illicit funds into another form.

Regarding the typologies of money laundering through casinos, the FATF exemplified: the purchase of casino chip with cash or using a casino account, then it is sought a ransom payment by check or by a transfer to your casino account. This method can be performed via a chain of casinos where the chips that were bought with illicit funds are then converted to credits then transferred to other jurisdictions where there is a unit of the casino chain.

In the European Parliament Report of 10 March 2009 relating to the integrity of online gambling,³¹ it is stated that the development of online gambling industry offers increased opportunities for corrupt practices such as fraud, arranged games, illegal bookmakers and money laundering, considering that online gambling can be quickly created and removed from the market due to the proliferation of offshore operators. The European Parliament calls on the Commission, Europol and other national and international institutions to closely monitor and report on the findings in this area.

²⁷ Malcolm Greenlees, *Casino*, p. 413.

²⁸ Lilley, P., *Dearty Dealling*. 115.

²⁹ Camelia Bogdan, Spalarea., p. 128.

³⁰ FAFT Report, Vulnerabilities of Casinos and Gaming Sector, March 2009, p. 28, http://www.fatfgafi.org/dataoecd/47/49/42458373.pdf. ³¹ Published in the Official Journal of European Union C /87/ E, p. 32.

The proxy auctions are a very effective tool for money launderers, being on a large scale expansion on the Internet. The user can register and then he can open to sale or purchase of various products.

For security reasons for people who buy and sell on auction sites, some of the auctions companies offer only certain basic financial services.³²

The buyer sends money to the bank account of the company and the seller sends the product. If the promised product for sale is according to the one received by the buyer, the company transfers the money to the seller.

The proxy auctions give the whole operation a legitimate appearance, given the existence of a company's auction reputation and a bank account.

The proxy auctions have as object virtual goods which have a counterpart in the real world.

Online Games

The emergence of online games, such as Entropia Universe and Second Life, offers new opportunities for money launderers to transfer or conceal fraudulent income. These online games belong to a broader category of virtual games called MMORPGs (Massively Multiplayer Online Role-Playing Game), being accessed by over half a million participants interconnected online and producing profits that exceed 1.5 million PED (Project Entropia Dollars), representing the player's virtual currency.³³

Thus, illicit money that have to be transferred from one destination to another, are changed in a virtual currency that belongs to the virtual platform.

To operate in the virtual gaming platform, the user must create a virtual identity called avatar. Theoretically, for each user it must be an avatar, but given the fact that this identity is created electronically, there can be no limit and control over the possibility that the same user may use multiple avatars.³⁴

The players involved in virtual games through the so-called *Avatar*, sell virtual goods and properties for a real compensation. These avatars were able to enrich people that sell virtual goods. Players can convert virtual money into real money by simply selling them on the auction websites.

In the virtual world of games, a person who retains its anonymity, pays no taxes and is not obliged to report can produce significant amounts of financial products.³⁵

Money launderers use virtual games because the virtual products can be purchased and transferred anywhere, and once the funds are withdrawn from a virtual account, they are considered legal and their source cannot be identified.

Conclusions

This scientific approach has been developed starting from the international (*The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Council of Europe Convention on Laundering, Search, Seizure and Confiscation of proceeds from crime, the UN Convention against transnational organized crime borders*), European (Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering and the Directive 2001/97/EC of 4 December 2001, Directive 2005/60 EC of the European Parliament and of the Council on prevention of the use of the financial system for the purpose of money laundering and terrorist financing) and national concerns (Law no. 656/2002 on preventing and sanctioning money laundering, and instituting measures for preventing

³² Wojciech Filipkowski, op. cit., p. 15-22.

³³ According to the virtual exchange rate 10 PED worth 1 USD.

³⁴ Dyonisyos S. Demesis, *Technology*, p. 8.

³⁵ Miller, M. and Jentz, G., Business, p. 467.

and fighting against the financing the acts of terrorism) in matters of money laundering, and in the presentation of the process stages of money laundering (placement, layering and integration), with the synchronization of money laundering techniques with technological developments and ending with the analysis of some new types of laundering adapted to the new payment systems, casinos, gambling and virtual games.

Money launderers resort to the new opportunities offered by technological development because of the benefits of the online payment systems and the virtual world, in terms of facilitating the crime of money laundering. Due to the anonymity, the speed of transactions, anytime, anywhere, the virtual platforms are the perfect environment for trading currency and smuggled goods.

The profits derived from criminal activities can easily be transformed, disguised, transferred in order to conceal their illicit origin through electronic payments, casinos and other gambling activities, by artificial buying and selling on proxy auction sites and by creating digital identities on the platforms of online games in order to sell virtual products into a virtual currency which will ultimately be converted into real money.

A solution to fight against the phenomenon of money laundering through modern technology would be tracking and monitoring money flows, they are able to suppress the criminal activity before it even started.

References

- Camelia, Bogdan, Spălarea Banilor, Aspecte teoretice şi de practică judiciară, (Bucharest, Universul Juridic Publishing House, 2010);
- Commonwealth Secretariat, Combating money laundering and terrorist financing: a model of best practice for the financial sector, the professions and other designated businesses, (London, Commonwealth Secretariat, 2006);
- Malcolm Greenlees, *Casino Accounting and Financial Management*, (Nevada, University of Nevada Press, 2008);
- Dan Vasilache, Plăți electronice. O introducere, (Bucharest, Rosseti Educațional Publishing House, 2004);
- Dyonisyos S. Demesis, Technology and Anti-Money Laundering: A Systems Theory and Risk-Based Approach, (Edward Elgar Publishing, 2010);
- Miller, M. and Jentz, G., Business Law Today: The Essentials, (Cengage Learnin, 2007)
- Elkins, A., *Twenty Blue Devils*, (New York, E-Rights/ E-Reads, 2010);
- FAFT Report, Vulnerabilities of Casinos and Gaming Sector, March 2009, p. 28, http://www.fatf-gafi.org/dataoecd/47/49/42458373.pdf;
- FAFT, Money Laundering Using New Payment Methods, (Paris, FATF/OECD, 2002);
- FAFT, Report of New Payments Methods, (Paris, FAFT/ OECD, 2010);
- Lech Janczewski and Andrew M. Colarik, Cyber Warfare and Cyber Terrorism, (Idea Group Inc., 2008);
- Lilley, P., Dearty Dealling: the untold truth about global money laundering, international crime and terrorism, (Cornwall, Kogan Page, 2006);
- ONPCSB, Manual de instruire privind combaterea spălării banilor şi finanțarea actelor de terorism, (Bucharest, Published by C.N. Imprimeria Națională S.A., 2010);
- 14.Rolf Oppliger, Security Technologies for the World Wide Web, (Artech House, 2002);
- 15.Wojciech Filipkowski, Cyberlaundering: An Analysis of Typology and Techniques, International Journal of Criminal Justice Sciences, Vol. 3 no. 1 (January – June 2008)