PROBLEMATIC ASPECTS OF CAUSALITY OF INSURANCE CRIMINALITY

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Abstract. Regardless of all efforts to curb criminality, the latter phenomenon remains quite threatening and vital, showing no signs of vanishing. However, the desire to control the spread of criminality requires assessment of not only the extent and trends of the latter, but also the sources feeding this phenomenon. The determining factors of criminality are an aggregate of various social and socially significant events, processes or facts having caused and conditioned criminality. Despite the major part of crimes are determined by the same common factors—unemployment, low education, dipsomania, drug-addiction, etc.—there is also a complex of contributing factors, characteristic to each type of crimes and/or field

of human activity. By being undiscovered, these contributors prevent the development of efficient preventative measures. This article is dedicated to the discussion of the main factors influencing insurance criminality.

Keywords: criminality, insurance crime, determinants of criminality, mathematical methods.

Introduction

Criminality, being critical to the state and society, is a relatively self-sufficient and self-determined social-legal phenomenon, and might be characterized as having historical volatility, i.e. it faces spatial and temporal changes due to a shift in social environment herewith “producing” criminals. These identified factors influence crime trends (Fig.1).

Since insurance is one of the areas of economic activity, common problems, determining economic offenses also have impact on crimes in insurance sector. One of

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the influencing factors is former state economic monopoly, which existed prior to the market economy reforms. This period is characterized by a conflict between demands of the people or certain social groups and legal restrictions of economic activity. The worse situation with legal industrial activity, the more profitable are criminal economic activities. For decades, the prevalent black economy formed a specific type of entrepreneur, pre-disposed to criminal activity (tax evasion, criminal ways of conflict resolution, etc.). Thus the transition reforms to a market economy were introduced in the economic system, already having the “genetic” propensity for criminal offenses. The growth of economic criminality has been affected by property privatization and economic liberalization process, which due to the lack of proper legal regulation has become very attractive to people gaining from illegal picking, thereby additionally financing the criminal business. It’s worth mentioning other determining factors as well: 1) The State’s inability to effectively protect business entities and solve discords emerging among them, hereby giving rise to the formation of a criminal infrastructure of economic relations; 2) The lack of a comprehensive economic regulatory approach; 3) The growing economic inequality and unemployment as well as the loss of socially valuable landmarks (degradation of the level of morality); 4) The punishment being inadequate to the dangerousness of the offences; 5) Ineffective actions of Law Enforcement.

Persons acting criminally make use of complex financial-economic relations, incompetence and ignorance of law, negligence, irresponsibility and over-confidence of the victims. Also, in order to achieve the desired objectives, the slightest gaps in legal environment are exploited as well as weaknesses in the organization of the government’s financial-economic system, in the actions of Law Enforcement authorities and in the organizational structure of victims.

Some problematic aspects of insurance crime have been addressed by Z. Sabinskas, D. Raškinis, Ž. Simonavičienė, more thorough theoretical studies on various questions

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of insurance criminality were published by V. Larichev, D. Fedotkin, N. Galaguza,
V. Mitrokhin, A. Algazin, T. Petrova, but none of the publications were dedicated
to the causality issues of criminal offences in question, or this topic was dealt rather
superficially without the application of triangulation of research methods. Western
scientists (R. Wright, D. Diegel, N. Carrini, B. Michaelson, B. Köhler, T. Baldock,
B. Zalma) put more emphasis on applied aspects of research of insurance crime thus
leaving the causality issue almost unattended.

The study aims to reveal the peculiar causes of insurance crime. The object is
insurance as one of the areas of economic activity, the subject matter is causality of
insurance criminality. The document analysis, synthesis, aggregation and mathematical
methods are applied.

Due to the limited scope of this study, only the major determinants of insurance
criminality are analyzed. The second part of this article is supposed to be dedicated to
the description of supplementary factors influencing the offences in question.

1. Typical Determinants of Insurance Criminality

Besides the common features typical of the economy in general, each field of
economic activity is also characterized by some properties attributable solely to that
sector. Usually these properties are availed by those who commit criminal acts in one
or other sphere of economy. The insurance industry is not an exception; therefore,
the following major factors leading to the criminalization of insurance sector can be
accentuated:

1.1. Lack of Attention of Law Enforcement to the Insurance Criminality

The forces of Law Enforcement agencies are directed primarily to investigate and
prevent offenses which pose the greatest danger to the public. In case of offenses of
economic nature it is determined by the amount of damage caused and/or increased
public reaction. Given the high degree of latency of insurance crime, i.e. a small number
of offences registered officially and relatively moderate harm caused, comparatively
low contribution of the insurance industry to the gross domestic product, governments
often consider the issue as having low priority. However, a number of studies carried
out in various countries have shown a significant risk of insurance crime to the public
(according to the most conservative estimates illegal payouts amounts to 10%-15% of
all insurance benefits; the dispersion of illegal payouts within the different insurance
classes is growing even faster and may range from 5% to several ten percents; U.S.
experts estimate that regarding vehicle insurance, fraud is encountered in 10% to 20%
insurance relationship, but also because of theft, malicious damage to property, killing etc., “concomitant” with insurance crime.

The problem of insurance criminality has long ago been extended out of the scope of the insurance market, some countries with a long tradition of insurance have promoted this issue to a national level. For example, the United States, starting with the 8th decade of the last century, has established a number of federal institutions dealing with the problem in question: Insurance Crime Prevention Institute, National Insurance Crime Bureau, Insurance Arson Control Board, etc. These authorities shall record and investigate insurance crimes and cooperate with local and federal Law Enforcement agencies, Interpol. Quite recently, a similar approach was adopted in a number of other countries, i.e. in Canada, United Kingdom, Sweden, Germany, France and others. Here, in Lithuania, however, the topic of insurance crime is interesting to individual researchers only, such criminal acts are investigated mostly by insurance companies. At best, the state considers a neutral position, but generally the burden of identification and prevention of insurance crimes is left to the insurance industry.

1.2. Public Tolerance to Insurance Crime

Attitudes of people, while acknowledging whether or not an insurance crime is an improper and dangerous phenomenon, in the absence of an effective investigative or preventive activity often become an exclusive agent in encouraging or deterring individuals from committing an offence in the sphere of insurance.

This statement was confirmed by public opinion polls. For example, U.S. studies, in which an attempt was made to find out why and to what extent society tolerates insurance crime, showed that according to the degree of tolerance and belief in why people commit insurance crime, respondents might be divided into four groups: 13

1. **Realists**, who tolerate such behaviour depending on the circumstances. They do not demand strict punishment. Such a view is shared by 21.6% of respondents;
2. **Conformists**, who have tolerated insurance crimes because they believe that many people are committing this and, therefore, offer minor punishment. This group comprises 26.4% of respondents;
3. **Moralists**, who do not tolerate such acts and propose to impose strict penalties for perpetrators. Such a position is supported by 30.7% of respondents;
4. **Critics**, who are the most tolerant to such activity accusing insurance companies of allegedly being not fair to the customers. Of course, this 21.2% of respondents consider insurance crime as a non-criminal act which shouldn’t be punished at all.

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Hence, as much as 70% of the population is more or less tolerant to the activity in question. Thus, society does not reckon the latter as offenses or at least consider as “reasonable.” Without public support it is not easy to legitimate preventive measures, and the absence of which in turn leads to an increase in extent of insurance criminality. As a result, insurance premiums are increasing (insurance is based on solidarity, where losses are distributed to all participants of the insurance relationship, namely, the policyholders; on increment of losses the contribution of each participant to cover them increases). The customers are not satisfied with this and endeavour to obtain services at a lower price or to retrieve money already paid every so often using illegal means, i.e. commit crime.

These studies also revealed the main reasons why those insured decide to profit illegally at the expense of insurance companies.¹⁴

More than two-third of respondents said that the motivating factor is the growth in price of insurance services, irrespective of the history of insured events, and, consequently, “unreasonable” profits of insurance companies.

Six out of ten respondents indicated that they simply seek to recover any money paid for insurance services they “didn’t use” (if an insured event did not occur during the period of insurance).

56% of respondents believe that the insurance premiums have already included the costs of fraud, therefore no one suffers damage from such offenses.

Nearly 4 out of 10 agreed that the insurance companies would not be defrauded if they treated customers fairly.

One third of respondents said that those insured are forced to defraud insurers in order to obtain insurance cover under desired conditions.

27% of respondents stated that they behave just like others, because everybody is defrauding his (her) insurance company.

A U.S. study (2000) showed that age also corresponds with a degree of tolerance of such activity: 51% of the respondents aged 18 to 29 treat casual offences as admissible, while those aged 30 to 40 were 4 out of 10 such respondents, and over 60 years of age—only 24%.¹⁵ The level of tolerance is also influenced by the income and education: persons with a lower income, as well as those with lower education are more likely to justify casual illegal activity. Ironically, as much as 88% of Americans (according to 1996 Gallup public opinion poll data¹⁶) and almost 80% of Canadians (according to

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1996 CCAIF public opinion survey\(^{17}\)) understands that insurance crime is a major issue, affecting the insurance premium level.

These results have been obtained from public opinion surveys in the U.S. and other countries with history of insurance business lasting several centuries where almost every private or legal person have contacted with insurance in one way or another, insurance companies focus on crime prevention in the field of insurance, including the formation of public opinion. Here, in Lithuania, where the low cultural level of insurance prevails, many insurance companies in various and even unacceptable ways attempt to seduce customers, the public is not educated and informed about the extent and impact of issues discussed in their everyday lives properly, people’s attitudes to insurance crime, perhaps, is even more liberal.

It should be noted that these studies displayed public attitudes to criminal acts in the field of insurance, which are committed by policyholders or insurance beneficiaries in order to make a profit at the expense of insurance companies. A completely different approach to insurance crimes committed by insurance companies is observed. Such an activity is highly condemned, it is required to impose strict sanctions. This is confirmed by the public survey conducted by IRC (1996),\(^{18}\) where 75% of respondents are in favour of prosecutions and tightening of sanctions to persons acting maliciously (such type of activities is characteristic of insurance companies). And only 28% of respondents offer the same means to casual offenders (policyholders and other insurance beneficiaries). It should however be noted that while examining the social causes of crime, society cannot be split into those insured and insurers (insurance companies). Both are the product of the same social formation, both have a similar mentality and approach to various phenomena, including the criminality. Therefore the principal change in the direction of condemnation of the latter shouldn’t befall either at the individual level or at the level of any social-economic group, but in respect of the whole society, moreover should regard the criminality and not insurance crimes only.

### 1.3. The Possibility to Improve the Financial Situation Committing an Insurance Crime

Both the private and legal persons in their life cycle can encounter financial problems—either a lack of current assets or resources for living, surpluses of illiquid production, the need to settle with the creditors, etc.—which can be solved by committing an insurance crime as one of the easiest ways out. For example, to insure dull stock, burn it and receive insurance payout (in other words, “sell” the excess of production to an

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insurance company) is much easier than looking for new markets for the disposal of production.

It’s impossible to reveal all the insurance crimes: it’s not always possible to prove the fact of crime unambiguously, also the investigation may be more expensive (both time and cost-wise) than, e.g. savings in the amount of insurance benefits. It means that \( \min_{p,n} (G_{DN}(p,n)) > 0 \), where \( G_{DN}(p,n) \) is the function describing the opportunities of commitment of insurance crime \( p \) and concealment of the latter \( n \).

On the other hand, personal justification of insurance crime and pressure of external factors prohibits from achievement of this goal. Since, according to A. Vertheimer, any activity aims at improvement of the situation, then, for instance, there is always worth for a policyholder to cheat in order to receive unreasonably high insurance benefit. In proof of this statement let’s assume that:

1\textsuperscript{st} assumption. The policyholder has wealth worth \( w \), which sustains \( L \) amount of losses, \( L \in (0, \bar{L}) \). Value of the wealth is described by function \( U(\bullet) \) which is strictly increasing.

2\textsuperscript{nd} assumption. Let’s denote \( i \) as the insurance premium, set for in the property insurance contract, and \( l(M) \) as a function of the insurance benefit, where \( M \) is the amount claimed by a policyholder. Also lets assume that the (unconditional) deductible\(^{19} \) \( D > 0 \) is foreseen in the contract, i.e. \( l(M) = 0, \forall M : M \leq D \) and \( l(M) > 0, \forall M : M > D \) (insurance payment for damages in excess of the deductible shall be paid in full less the deductible).

3\textsuperscript{rd} assumption. If the insurance company determines that \( M \geq L \) (amount claimed by the policyholder is bigger (at least not less) than the actual loss suffered, i.e. an element of fraud is allegedly involved), the insurance benefit is described by the function \( q(M,L) : 0 \leq q(M,L) \leq l(L) \) and \( q(L,L) = l(L) \), meaning that when insurer ascertains that the claim is exaggerated, the disbursement paid does not exceed the actual loss suffered.

4\textsuperscript{th} assumption. The insurance company has implemented such claims administration and control procedures, that the probability to ascertain \( L \), when \( M \) amount is claimed, is \( p(M,L) \). For the sake of convenience let’s consider that such auditing either allows to assess the actual amount of damage \( (L) \), or not, but in order to avoid mistakes in evaluating the claim as an attempt to cheat, amount of damage, unequal to \( L \), is never assessed. Let’s suppose that due to lack of time, resources or technical limitations, it isn’t possible to audit all claims or identify all fraudulent cases, i.e. \( 0 \leq p(M,L) < 1, \forall M, L \)

Also let’s say that the audit is more intensive then the bigger amount \( M \) is claimed (the higher the claim the more properly it is investigated), i.e. \( p(\bullet) \) is continuously increasing.

Lemma. \( q(M,L) = 0, \forall L: 0 \leq L \leq D \).

\( \triangleright \) The proof follows directly from the 2\textsuperscript{nd} \( (l(L) = 0, \forall L: 0 \leq L \leq D) \) and the 3\textsuperscript{rd} assumptions \( (0 \leq q(\bullet) \leq l(L)) \). \( \triangleright \)

\(^{19} \) A deductible is the amount of expenses that must be paid by the insured before the benefits of the policy can apply.
This means that insurance company would never pay an insurance benefit to the client who submitted claim bigger than deductible (i.e. \( M > D \)), when the actual loss is less then deductible (i.e. \( L \leq D \)), once the fraud is revealed.

For any insurance contract \( k \), which is defined by the set of attributes \( k = \{ i, l, q, p \} \) when the loss of \( L \) amount is suffered, the insurance beneficiary has expected gain (eligible insurance payout), which can be expressed by the utility function:

\[
EU(M) = \left[ 1 - p(M, L) \right] U\left[ w - i - L + l(M) \right] + p(M, L) U\left[ w - i - L + q(M, L) \right]
\]

It should be noted that in cases where the policyholder gives proper information about the circumstances of the insured event and amount of damage (i.e. \( M = L \)), expected utility \( EU(L) = U\left[ w - i - L + l(L) \right] \).

Let us denote \( M^* = M^*(L) \) as the optimal amount to claim due to loss \( L \) which policyholder has suffered in the insured event.

1\textsuperscript{st} conclusion. \( M^* > D \), \( \forall L : 0 \leq L \leq D \).

► When \( L \leq D \), policyholder may choose to claim either \( \hat{M} \leq D \) or \( \hat{M} > D \). Since \( L \leq D \), according to the lemma \( q(M, L) = 0 \). The comparison of the expected utility in each of these cases reveals:

\[
EU(\hat{M}) = \left[ 1 - p(\hat{M}, L) \right] U\left[ w - i - L + l(\hat{M}) \right] + p(\hat{M}, L) U\left[ w - i - L \right] \leq U\left[ w - i - L \right] = EU(\hat{M}) \uparrow
\]

Therefore, the insurance company will always be fraudulently claimed for any actual loss less than deductible.

2\textsuperscript{nd} conclusion. \( M^* \geq L \), \( \forall L : 0 \leq L \leq \bar{L} \).

► When \( L \leq D \) the proof follows from the 1\textsuperscript{st} conclusion. When \( L > D \), it is sufficient to prove that the policyholder will never claim \( \hat{M} < L \). This follows, firstly, from the 4\textsuperscript{th} assumption, that whenever the insurance company assesses the real amount of loss \( L \), the insurance benefit will still do not exceed the required amount \( \hat{M} \). Secondly, then it is sufficient to show that the policyholder have better expected utility claiming not less than the actual loss:

\[
EU(\hat{M}) = U\left[ w - i - L + l(\hat{M}) \right] \leq U\left[ w - i - L + l(L) \right] = EU(L)
\]

since \( l(L) \geq l(\hat{M}) \). \uparrow

It follows that the optimal amount to be claimed is supposed to be always exaggerated comparing to the actual loss.

3\textsuperscript{rd} conclusion. From the 2\textsuperscript{nd} conclusion it follows that \( M^*(\bar{L}) = \bar{L} \).

It means that the optimal amount to be claimed in case of total loss should not exceed the possible maximal loss.

4\textsuperscript{th} conclusion. From the 1\textsuperscript{st} and 2\textsuperscript{nd} conclusions it follows that \( M^* > D \), \( \forall L : 0 \leq L \leq \bar{L} \) i.e. optimal amount to be claimed always exceeds deductible irrespective of the amount of actual loss.
In summary, it can be stated that optimal and most beneficial claim for the policyholder is the one under which the insurance disbursement shall reimburse the greatest part of (or even exceed) loss suffered, i.e. such a claim \( C^*_I \) which satisfies conditions \( C^*_I : \max_{C^*}(C^*_I), \min_C(C^*_I), \forall C \) (insurance benefit is maximized under all possible contractual reimbursement conditions and losses to be borne by the policyholder are minimized under all possible contractual conditions). It should be noted that the set of circumstances of the insured event is fixed and determined by the event itself, while the client of the insurance company, seeking after beneficial insurance payout, should modify this set while providing information to the insurance company in a way to maximize the potential disbursement and minimize the costs which are not covered, i.e. defraud insurer. In the proven case (see 4th conclusion) the optimal claim always exceeds the deductible foreseen in an insurance contract, irrespective of the actual loss, and often exceeds (see 2nd conclusion) the loss suffered.

Conclusion

Insurance criminality as well as other types of crimes might be characterized by a distinctive range of influencing factors. Among them following more important determinants could be distinguished, i.e.: 1) Lack of attention of Law Enforcement to insurance criminality. Despite the significant risk insurance crime poses to the public, only relatively lately some countries with a long tradition of insurance have promoted this issue to a national level; 2) Public tolerance to insurance crime.

Attitudes of people, while acknowledging or not insurance crime as an improper and dangerous phenomenon, in the absence of an effective investigative or preventive activity often become an exclusive agent in encouraging or deterring individuals from committing an offence in the sphere of insurance.

Nonetheless, an important factor is the possibility to improve the financial situation committing an insurance crime. The mathematical analysis substantiated in this paper suggests that insurance fraud is an inevitable phenomenon, since, for example, the beneficiary is always in favour of cheating in order to receive an unjustified payout, which would not be rewarded (or would be disbursed to a lesser extent) in accordance with the contractual terms of insurance.

The assessment of the damage caused by insurance crimes (reaching nearly one hundred million Litas per annum\(^{20}\)), extent of latency of the latter, current economic environment and the latest trend in turnover of the insurance market allows to forecast further increase in the number of offenses in question. In this context, it is necessary to take scientifically-based measures to impact on spread, structure and dynamics of insurance criminality, in other words, intensely prevent those offenses. Accordingly, it should be assumed that the appropriate comprehensive evaluation of these contributors would lead to construction of more efficient preventive measures.

References


Facts of the general insurance industry in Canada: key industry issues. IBC. 1997.


Įvertinus draudiminiais nusikalstamumo padaromą žalą (gali siekti šimtą milijonų litų per metus), šių veikų latentinumo mastus, ekonominę aplinką ir draudimo rinkos apyvartos augimo tendencijas, prognozuotina, kad aptariamos nusikalstamos veikos Lietuvoje ateityje plis. Atsižvelgiant į tai būtina imtis tam tikrų priemonių, galinčių daryti poveikį draudiminio nusikalstamumo paplitimui, struktūrą, dinamikos tendencijoms, kitaip tariant, užkardyti šias nusikalstamamas veikas. Straipsnyje taikant matematinius metodus yra parodoma, kad draudiminės nusikalstamos veikos yra neišvengiamas reiškinys, kurio nors ir neįmanoma panaikinti, tačiau galima sumažinti jo sklaidą taikant moksliskai pagrįstas priemones.
Reikšminiai žodžiai: nusikalstamumas, draudiminis nusikaltimas, nusikalstamumo determinantai, matematiniai metodai.

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