DOI: 10.32370/IA_2022_06_4

Some Aspects of the Integration of Natural and Legal Knowledge and Issues of Judicial Control (Past and Present)

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Abstract

Crime expansion and its structural changes created a need for new general approaches to developing methods of discovering and analyzing crimes characterized by high latency. Theoretically, facts of crimes can be discovered at the objects of management and financial activities with the help of traditional criminalist and investigation methods. However, for improving the cited above methods it became of great need to establish scientific interconnections. That's why economic and criminalist analysis is widely used as the former is based on studying body of technical and financial indices of objects under control under investigating crime signs, which usually manifest themselves as breaking stable interconnections between indices. Along with advantages of the cited above approach the former is characterized by laboriousness and high requirements to inspection activity including well-qualified auditors, time and funds spending. Just according to the cited above circumstances the researchers have developed scientific concept of criminalist and mathematical approach to analyzing and detecting crimes.

The problem of society and individual's interests' correlation in increasing fighting organized crime is one of the most complicated. Every state solves it considering existed legal traditions, ideas, legal conscience of the people, and even their mentality. But the general tendency is that the means of fighting organized crime are more severe than those applied for fighting not organized crime. Papers of UNO X Congress on Preventing Crime and Treatment of Law Violators (Vienna, April 2000) prove that because of increasing scale and appearing new forms of transnational organized criminality, it is worth reconsidering some traditional opinions concerning justice for law violators, and some their rights as they are an obstacle for effective investigation and prosecution.

Key words: criminal, mathematical, economy, algorithm, investigating crimes, prosecution.

Introduction The approach is based on formalized complex of procedures and algorithms eliminating element of subjectivity. The research group consists of G.A. Matusovsky [2], M.S. Vertuzaev [1], E.V. Bodiansky (researcher), PHD in engineering science I. Pliss (mathematician) [3-6] and O. Popov (system analyst).

For implementing the approach, it is necessary to develop special methods of accumulating and processing initial indices, developing data and knowledge ba algorithm of prediction, analysis a making decision, imitation and ga models, i. e. all methods developed computer engineering.

As the research is of criminalist a computer sciences interconnection character, the researchers used appropriate scientific potential of logics law and mathematical approaches. It is natural that some formal approaches required describing special mathematical procedures easily understood by specialists only. In this connection the researchers had to describe the former in popular mathematical form including description of the results achieved and research technology applied. To our mind, the cited above measure is compulsory requirement to reflect the research process and results especially a far as the humanities and exact science concern.

In compliance with the research hypotheses the project purpose is fulfilled within the established program. Proceeding from criminalist tasks mathematical methods are used to compress financial and economic files, which characterize definite objects, to detect contradictions and process and select objects, which have differing characteristics in actual time.

The researchers used the following:

- information sources: legislative acts, expert judgments, national statistics, publications as to data on situation, structure and dynamics of crime including banking and taxation-related crime:

- data collection methods: comprehensive analysis of the cited above information sources and mathematical methods;
- analytical methods: descriptive, comparative, data mining, intellectual methods of data processing;
- methodological design: description, quantity data, tables, and schemes.

Implementation of mathematical and computer methods and development of the developing data and knowledge base, algorithm of prediction, analysis and making decisions, imitation and game models, i. e. all methods developed in computer engineering.

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In compliance with the research hypotheses the project purpose is fulfilled within the established program. Proceeding from criminalist tasks mathematical methods are used to compress financial and economic files, which characterize definite objects, to detect contradictions and process and select objects, which have differing (nonstandard) characteristics in actual time.

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Implementation of mathematical and computer methods and development of the former on the basis of mathematical and crimanist approach to detecting crimes and their traits required using definite quantity indices of activity of respective research objects.

As taxation is the most vulnerable to crime activities characterized by universality and prevalence the former is chosen an object of their research.

Based on the published data on financial activities of objects, in particular banks the researchers pretest theoretical results. Final test of the research results was based on data about financial activity of objects given by law enforcement agencies. Initial data file was presented in tables of figures including information on objects (more than 80) characterized by 18 activities. Under the term of the experiment the researchers were not informed as to the names of objects and kinds of activities. The initial data file was examined with the help of the developed methods. The results of compressing were projected onto the plane. Under consideration of the former it is evident that most objects analyzed form rather solid “core” except objects-outsiders (## 46, 51-68) remaining behind enough the main group. The administrative inspection revealed that one of the cited above objects was bankrupt (under possibility of criminal activity committed) and the other one had essential deviations.

The administration of the cited above department took interest in collaboration to apply the research results in practice [2].

Let us analyze in connection with it the adequacy of legislation regulation in applying such punishment as putting in prison to modern state of crime, in particular, its organized forms. The aim of any confinement measure including arrest is a necessity in preventing evading investigation or trial; not admitting to prevent establishing the truth, preventing criminal activity and providing possibilities for implementing the sentence. Putting under arrest is a severe measure used as a rule only in cases on committed crimes, for which the law provides confinement term of more than three years. But one should take into consideration conditions provided of Criminal Procedural Code of Ukraine. The exceptions are persons for whom arrest was chosen even only because of dangerous motives of crime they are accused in committing. The danger of a crime is an estimate category. That is why in order to avoid discrepancies in legal practice this problem is solved by legislation - the list of crimes normatively considered dangerous was set in the Criminal Procedural Code of Ukraine.

During investigating crimes committed by organized criminal groups, the persons standing on the lowest step in criminal group hierarchy are arraigned, they are the doers.

Persons in charge of criminal groups are detained mostly for petty offences, and arrest as a confinement measure for them may be when lodging appeal to court be changed into a milder one: pledge or subscription on non-leaving on legal basis. After it they are either hiding or (depending on situation) assassinated. Thus, arresting persons accused in committing crimes as members of organized groups has one more objective - saving their life and health. That is why to accomplish the goals of justice, it is necessary to put in into procedural law a separate reason for choosing arrest as a confinement measure: “if a person is accused in committing a crime being a member of organized group or criminal organization”.

Organized crime has transnational character, its activity embraces countries that are different not only in state system or government mechanism but also belonging to different legal systems. This makes difficult using evidence obtained in one country for administering justice in another, as it is realized on a basis of national criminal-procedural legislation. It is necessary to minimize the consequences of legal differences. From this point of view the analysis is interesting concerning reasons, ways, and consequences of implementing such action as tapping phone calls and other communication means.

In Ukraine normative regulation of tapping phone calls and electronic supervision on legislation level was first implemented in 1992 in the Law “On Operative-Search Activity”. The absence of judicial procedure of supervision over obtaining information did not guarantee its truth, observance of human rights and freedoms Though. Considerable changes in the procedure of control over operative- search actions were in 1996 because of adopting Constitution of Ukraine, when secret intrusion into premises. tapping phone conversations became possible only with court permission. Next important step for legislation regulation in restricting constitutional rights of citizens became the Law of Ukraine “On Bringing in Changes into Criminal Procedural Code of Ukraine” of June 21, 2001. This Law for the first-time regulated reasons and grounds for accomplishing such investigation action as obtaining information from communication canals, and also having permission for conducting it.

Nevertheless, non-regulation in some issues still existed, and even a need for legislative solving new ones arose. This can be referred first of all to clear defining terms for limitation constitutional rights of citizens, and reality of judicial control over this restriction. The Code provides that judicial decision concerning obtaining information from communication channels has a term during which this information may be obtained. The Law “On Operative-Search

Activity" also has indication to terms but only generally, that is "limitation of constitutional rights and freedoms is temporary". Thus, the terms are limited not by a law but by a wish of a judge, that is I think not the best decision. Initial and maximum (two months, for example) terms for implementing actions restricting constitutional rights of citizens (in addition it will be differentiated depending on a stage of crime investigation), and the way of prolonging initially set term by a judge, in limits provided by law. Such a rule would allow deciding a question of using facts obtained later than in terms set by law as evidence, avoiding probable abuses. For the same purpose should be provisions of such attachments to a criminal case documents: a) a decision of a judge allowing obtaining information from communication channels; b) a decision on prolonging the term of implementing this action; c) protocols of all tapping, collecting and searching cases. The Criminal Procedural Code provides that obtaining information from communication canals is ceased after the end of term set for implementing this inquiry action by judicial decision [7].

Conclusions Thus, in compliance with the authors' application for the project contest and proceeding from the research results the researchers made propositions as to the implementation of mathematical and criminalist approach to analyzing financial and economic information. The approach allows detecting nonstandard objects including ones in possibly unfavorable state. In contrast to traditional methods of auditing, investigation and other activities, the proposed method requires minimum time and funds to conduct analysis.

In the purpose of negative phenomena monitoring and crime prevention it is advisable to continue research for developing mathematical and criminalist procedures of detecting and predicting objects behavior.

That is why a rule should be set according to which an investigator must inform the court that gave permission about its finishing, having copies of corresponding protocols attached, if tapping or obtaining information from communication canals in any other way was conducted.

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