THE EVALUATION OF INTELLIGENCE ANALYSIS METHODS AND TECHNIQUES – ANOTHER STEP IN IMPROVING THE INTELLIGENCE ANALYSIS PROCESS -

Valentin-Ionuţ NICULA*

Abstract:

Intelligence analysts are forced to face the most diverse challenges generated by the security environment they analyze, so they must constantly update methodologies and analytical techniques used to meet beneficiaries' needs.

On the other hand, the development of technological and scientific spectrum generally brings methodological development, offering a wide range of options for researchers and analysts in their respective fields.

From this point of view, we can talk about the temptation of novelty and accessibility of some analysis methods and techniques that can be borrowed and implemented in the field of intelligence analysis.

In this regard, this study proposes a tool for assessing the methods and analytical techniques developed in the form of an evaluation matrix, tested on a number of risk analysis methods and techniques suitable to be applied in intelligence analysis.

Keywords: *intelligence analysis, analytical techniques, assessing the methods, evaluation matrix*

Introduction

The abundance of information - one of the features of the contemporary society - generates ambivalent effects on the activity of the intelligence organizations.

* PhD. Candidate National Institute for Intelligence Studies within "Mihai Viteazul" National Intelligence Academy

On the one hand, intelligence analysts are forced to face the most diverse challenges generated by the reference environment analyzed, so they must constantly update their methodologies and analytical techniques used to meet the beneficiaries' needs.

On the other hand, the development of the technological and scientific spectrum in general brings methodological development, offering a wide range of options for researchers and analysts in the respective fields.

From this point of view, we can talk about the temptation of novelty and accessibility of some analysis methods and techniques that can be borrowed and implemented in the current intelligence analysis process.

However, having in mind these considerations, one must highlight the necessity of testing and validating the methodological tools used in intelligence analysis, in order to meet specific needs with efficiency and effectiveness.

In this regard, this study proposes a tool for assessing the analytical methods and techniques, developed in the form of an evaluation matrix, tested on a number of risk analysis methods and techniques applicable in intelligence.

Thus, having as a prerequisite the elements of the marketing mix and the 3P project for intelligence analysis introduced by Ionel Nițu, we propose to complete the 3P project by adding three more concepts that constitute the indicators for developing the evaluation matrix of analytical methods used by analysts in their current activity.

Hence, according to economic science theorists, the marketing mix is a concept introduced in 1964 by Neil Borden, in order to coherently use variables through which an organization can consistently have the market under control. Initially, there were developed twelve variables: product, price, brand, distribution, direct selling, paid advertising (advertising), sales promotion, packaging, exposure, post-sale services, logistics and marketing research. Also in 1964, Jerome McCarthy simplified the mix to "4 Ps": product, price, placement and promotion (communication) (Pripp, 2002, p. 37):

1. The Product (after Ph. Kotler - Marketing Management 126, New Jersey, 1992) is "something that can be offered in a market to be viewed, purchased, used or retained, so as to satisfy a desire or a necessity. This refers to physical objects, services, organizations and ideas" (Pripp, 2002, p. 38).
2. The Price includes the costs that the "buyer" has to pay. It is a set of strategies, techniques and tactics that determine the levels and changes

in time, on demographic, psychographic and geographic zones of costs that the population has to incur.

3. The Placement is ensured through the networks and distribution channels of products supported by the motivational component of individuals involved in realizing these projects. "The placement is built as a set of operations that aim to introduce in the physical circuit the products and services".

4. The Promotion refers to how the population is informed about political programs and also on ways to stimulate interest in this kind of offer. Communication, as a mean of promoting political programs, is a set of policies, actions and media, advocacy and policy for influencing consumer behavior through advertising, public relations, permanent presentation and performance on all media channels of personalities and political programs, up to personalized communication (direct messages through personalized letters) (Pripp, 2002, p. 38-40).

For political structures, another three "Ps" are added, resulting a political marketing mix consisting of seven elements:

1. Personnel: is provided by people who contribute to manufacturing and delivering the product on all stages.

2. Physical premises: are represented by logistics, materials and financial conditions necessary to the realization of the program in all the phases of the mix.

3. Profit: signifies the real benefits the program brings both to political consumers and producers of offers alike, which, once accepted, will be basically involved in implementing it, through various functions they will hold (Pripp, 2002, p. 40).

In the field of intelligence, starting from the need to modernize and continuously adapt the intelligence organizations, Ionel Nițu identified three factors that are essential in the reforming process: Process, Personnel and Product. According to the Romanian expert's approach, the three factors are interrelated and are characterized by the following (Nițu, 2011, pp. 85-95):

The Process (Nițu, 2011) refers to the intelligence analysis activity from an organizational and operational perspective, with the entire set of methods, procedures and standards implemented.

The author analyzes this factor from several perspectives. Thus, from the functional perspective, he considers that intelligence analysis should have

a central place, facilitating the connection inside the intelligence cycle between the collection activity and the dissemination one.

From a methodological perspective, Ionel Nițu believes that improvements and structural and methodological adjustments of processes and products resulting from intelligence analysis must be made permanently in order to maintain high quality and efficiency standards.

From a structural viewpoint, the author believes that a clarification is necessary regarding the functional duties of different structures involved in the process of intelligence.

The Personnel (Nițu, 2011) refers to the human resource involved in the analysis process, but also to the selection and training process. Regarding this factor, Nițu believes that a model for training in intelligence analysis must be set up, in which different levels are merged, from the training of the new entrants up to optimal ways of training the trainers.

The Product (Nițu, 2011) factor refers to the results obtained after the intelligence analysis is conducted, including the feedback from the beneficiaries and the requests for information. Thus, equal importance must be given to all levels where intelligence results are disseminated– be it tactical, operational or strategic - and the products must be adapted to the needs of the beneficiary and their psychological profile alike.

Adaptation to the intelligence field - Additional elements for the "3P project"

Taking into account the theoretical aspects presented above, we propose the introduction of some additional elements to the "3P project", to be used in the evaluation of analytical methods available in the field of intelligence analysis, as follows:

Promotion

It focuses on two levels: how the guild of analysts is informed about new analytical methods and the ease with which the information about them is disseminated and assimilated. The second level concerns the way in which the intelligence activity beneficiaries are informed of new analytical methods discovered and introduced in the analysis.

Physical premises

Refer to the material conditions necessary for the flawless running of intelligence analysis. They include personnel costs, hardware and software

used and time spent for analytical work using a particular set of procedures and analytical methods.

Profit

Refers to the benefits obtained in the field of national security by applying certain methods or analytical techniques, which enhance the process of obtaining intelligence products relevant to the beneficiary. The benefits can be measured from the perspective of the beneficiary in terms of relevance and accuracy of the intelligence product received and from the perspective of the intelligence organization that can deliver intelligence products in less time and with less resource consumption.

On this basis, we have developed an evaluation matrix that has been operationalized and tested by assessing some risk analysis methods, as follows:

The operationalization of the items used in the matrix

No. Crt.		Factors					
		Process	**Product**	**Personnel**	**Promotion**	**Physical premises**	**Profit**
Features	**1.**	How does the method help the intelligence activity as a whole?	How does the method help the realization of intelligence products?	How does the method help the personnel in completing the task?	Is the method known?	How long does it take for the method to be applied?	What benefits does it bring for the organization in understanding the problem analyzed?
	2.	How does the method help the intelligence activity's effectiveness?	How quickly the product can be achieved by using the method?	Is it difficult to be understood and applied by the personnel involved in the analysis process?	What efforts should be made to promote it?	Can it be applied individually or as a team? What other conditions must be ensured for the team? (venue, special equipment, computers)	What advantages does it offer to the beneficiary in the decision-making process?

Scores from 1 to 5 given for each feature of each factor separately. An average is calculated for each factor separately. The total score is the sum of the averages obtained by the 6 factors. The maximum total score that can be obtained by a method: 30. The minimum total score that can be obtained by a method: 6.

The list of risk analysis methods evaluated

No. crt.	The name of the risk analysis method
1	Hazard checklist
2	Preliminary Hazard Analysis (PrHA)
3	Hazard Review
4	Preliminary risk analysis
5	Change analysis
6	*What if* analysis*?*
7	*SWIFT* Analysis
8	Relative Ranking/Risk Indexing
9	Pareto Analysis
10	Facilitated Risk Analysis Process
11	Failure Mode and Effects Analysis (FMEA)
12	Hazard and Operability (HAZOP)
13	Fault Tree Analysis (FTA)
14	„5 whys" technique
15	Event tree analysis (ETA)
16	Human Reliability Analysis (HRA)
17	Events and Causal Factor Charting
18	Scenario analysis
19	SWOT analysis
20	The analysis of competing hypotheses
21	Red Team analysis

Scores obtained by the risk analysis methods based on the matrix

No. Crt.	The name of the risk analysis method	Factors																		Total score
		Process			Product			Personnel			Promotion			Physical premises			Profit			
		Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	
1	Scenario analysis	4	5	4.50	4	3	3.50	4	5	4.50	5	5	5.00	3	4	3.50	4	4	4.00	25.00
2	SWOT analysis	4	5	4.50	4	3	3.50	4	5	4.50	5	5	5.00	3	4	3.50	4	4	4.00	25.00
3	SWIFT Analysis	4	4	4.00	4	4	4.00	4	4	4.00	4	4	4.00	4	4	4.00	4	4	4.00	24.00
4	The analysis of competing hypotheses	4	4	4.00	4	3	3.50	4	5	4.50	4	4	4.00	3	4	3.50	4	4	4.00	23.50
5	Red Team analysis	4	5	4.50	4	3	3.50	4	4	4.00	4	4	4.00	3	3	3.00	4	4	4.00	23.00
6	What if analysis?	3	4	3.50	3	4	3.50	3	4	3.50	4	3	3.50	4	3	3.50	4	4	4.00	21.50
7	Facilitated Risk Analysis Process	3	4	3.50	4	3	3.50	3	4	3.50	3	4	3.50	3	4	3.50	4	3	3.50	21.00

No. Crt.	The name of the risk analysis method	Factors																		Total score
		Process			Product			Personnel			Promotion			Physical premises			Profit			
		Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	
8	Failure Mode and Effects Analysis (FMEA)	3	3	3.00	4	3	3.50	4	4	4.00	3	4	3.50	3	4	3.50	4	3	3.50	21.00
9	Fault Tree Analysis (FTA)	3	3	3.00	4	3	3.50	4	4	4.00	3	4	3.50	3	4	3.50	4	3	3.50	21.00
10	Event tree analysis (ETA)	3	3	3.00	4	3	3.50	4	4	4.00	3	4	3.50	3	4	3.50	4	3	3.50	21.00
11	„5 whys” technique	2	3	2.50	3	3	3.00	4	4	4.00	3	4	3.50	4	4	4.00	3	3	3.00	20.00
12	Hazard checklist	2	4	3.00	3	4	3.50	3	4	3.50	2	2	2.00	3	4	3.50	3	4	3.50	19.00
13	Pareto Analysis	2	2	2.00	3	3	3.00	2	3	2.50	4	4	4.00	4	4	4.00	3	3	3.00	18.50

No. Crt.	The name of the risk analysis method	Factors																		Total score
		Process			Product			Personnel			Promotion			Physical premises			Profit			
		Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	
14	Hazard and Operability (HAZOP)	2	3	2.50	4	3	3.50	3	3	3.00	3	3	3.00	3	4	3.50	3	3	3.00	18.50
15	Preliminary risc analysis	2	3	2.50	3	3	3.00	3	3	3.00	2	2	2.00	4	4	4.00	3	3	3.00	17.50
16	Hazard Review	2	2	2.00	2	3	2.50	2	3	2.50	2	3	2.50	3	3	3.00	2	3	2.50	15.00
17	Human Reliability Analysis (HRA)	2	2	2.00	2	3	2.50	3	3	3.00	2	3	2.50	2	3	2.50	3	2	2.50	15.00
18	Events and Causal Factor Charting	3	3	3.00	2	2	2.00	3	3	3.00	2	2	2.00	2	3	2.50	3	2	2.50	15.00
19	Relative Ranking/Risk Indexing	3	3	3.00	3	3	3.00	2	2	2.00	2	2	2.00	3	2	2.50	2	2	2.00	14.50

No. Crt.	The name of the risk analysis method	Factors																		Total score
		Process			Product			Personnel			Promotion			Physical premises			Profit			
		Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	Score ft. 1	Score ft. 2	Average	
20	Preliminary Hazard Analysis (PrHA)	2	3	2.50	3	3	3.00	2	2	2.00	2	2	2.00	3	2	2.50	2	2	2.00	14.00
21	Change analysis	2	2	2.00	2	2	2.00	2	3	2.50	1	2	1.50	3	2	2.50	2	2	2.00	12.50

Conclusion

In this study we have tried to evaluate some methods of intelligence analysis through the valences that they can prove to a specific field of activity, starting from the premise that one can find tools for risk analysis available to every analyst. From this point of view, it is important to calibrate the method on the situation/event/issue analyzed and to comply with the methodological steps of the method chosen.

Thus, we have tested the tool proposed for evaluating the risk analysis methods identified in the literature – The matrix for the evaluation of analysis methods - built on the theoretical model of the 3P (introduced by Ionel Nițu) to which we have added three more factors useful in evaluating the analytical methods.

In this way, every analyst has at his reach a tool to evaluate the methods that he's operating with, thus allowing him to prioritize and select the methods used according to the current needs. Finally, the analysis process is more efficient, when those methods and analysis techniques relevant to the issue under consideration are used.

Given these issues, we conclude that, by applying intelligence analysis methods adapted to the specificities of national security matters, the efficiency of the intelligence analysis process is enhanced.

Acknowledgement:

This paper is made and published under the aegis of the Research Institute for Quality of Life, Romanian Academy as a part of programme co-funded by the European Union within the Operational Sectorial Programme for Human Resources Development through the project for **Pluri and interdisciplinary in doctoral and post-doctoral programmes Project Code: POSDRU/159/1.5/S/141086.**

References:

1. Pripp, Cristina (2002) *Marketingul Politic*, București: Editura Nemira.
2. Nițu, Ionel (2011) *Ghidul analistului de intelligence*, București: Editura Academiei Naționale de Informații „Mihai Viteazul".