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Decision theory – renewing the empirical study of economic behavior

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Content

Introduction

The purpose of the present study and the guiding line in this article is to accept the re-evaluation of social behavior in decision theory. The subject analysis in this article focuses on to understand better the white collar criminality in Israel decision analysis a new approach and at all countries. The outcome of the study is to produce the necessary steps to reduce the phenomenon of WCC crime in Israel and the world. In order to obtain this purpose the author has performed the systematization of the fact that above 80 percent of decision makers rely on intuiting rather than rational choice in fact and their further analysis.

The author gives the answer on the questions which were considered to be the most disputable in the early studies, in the field of economics decisions, which represents that criminality has corresponded the rational assumption behavior of the criminal, who examines the strategic cost versus benefit from perpetration of the offence . There have been formulated the fact that it is improper to talk about rationality decision in WCC crime (for example of tender crimes) in Israel and the world, because of a re-evaluation of what rational decision-making requires.

The biggest attention has been spared to the aspect that represents the Psychological-economic aspects of decision behavior, for describing how people choose between alternatives and evaluate potential losses - because the rational procedure can not identify, and to choose the one action that causes a rise to the highest total» expected value gains».

The Author formulates the Meaning that the WCC manage risk and uncertainty crime decisions according three regularities: 1. Losses loom higher than gains; 2. Persons focus more on change in their utility states than they focus on absolute utilities; 3.The estimation of subjective probabilities is severely biased by. Anchoring

Conclusions proposed in the result of the article represent not

only the theoretical but the evidents empirical importance.

*   **Key-words:** white-collar criminal (WCC) ; isolated phenomenon; decision theory ; decision analysis; Prospect Theory ; Psychological-economic aspect t; Intuition thoughts ;   making choices under uncertainty; Heuristic behavioral; non-rationality theory; risk-seeking behavior;   evaluate and potential losses ; commit the crime; tender crimes; probability information in the mind; re-evaluation of social behavior.*

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Comparing to the crimes data from white-collar offences in the study of Besora-Regev (2008) in which the sample period is between the years 1980-1998, there has been a rise of about 5% in the number of the overt records reported in the Israeli Police of white-collar crimes in the sample period of 1998-2011, related to by current study. The annual number of crimes is around 50,000 of reported crimes. The trend shows an average descent of about 5% in the number of reported crimes in current study in comparison to the previous one.

In fraud and abuse crimes, the numbers of overt file records opened in the Israeli police, in the sample periods of the two studies are equal, and are between 4,578 and 6,309 reported crimes in the fringes, with an average of about 5,400 crimes annually.

Still, I emphasize that the important datum is the limitation of existing data – a limitation that exists almost in every statistical study on the subject of law enforcement, which in our relation to the statistical data reflecting the number of crimes reported to the Israeli Police as opposed to the number of actual crimes. Although this is the only datum we have and the widest one, it would be correct to announce that this datum has a real research validity that reflects in the «closest» manner white-collar criminality in Israel, as addressed by the previous study of Besora-Regev (2008).

The reason is that it is estimated that only 2-3% of the white-collar crimes are reported to the Israeli Police. The handling of these offences is finalized inside the organizations, due to fear of damage to reputation etc., as well as due to the key fact that there is much difficulty in discovering white-collar crimes as they are sophisticated and hard to discover.

Several years ago, the Commissioner of Customs and VAT estimated that the amount of black capital in Israel reaches about 17 billion $. This estimation is based on the assumption that the amount of black capital in Israel approaches the rate of 15% of the Gross Domestic Product. The origin of a significant portion of the black capital which is estimated at 2-5% of the Gross Domestic Product is in laundering of capital procured by criminal activity.

Money laundering in Israel and a lot of countries in the «east» for example , is often more extensive than what is acknowledged: many crimes are not registered. We assume that the data on the scope of black capital as a result of criminal activity is similar to its scope in Israel.

Therefore, the data on white-collar criminality in Israel and all countries require a different approach to the fighting with this type of criminality. This paper attempts to deal with a new strategy for decreasing white-collar crimes in Israel and Moldova.

Economic Crimes in Moldova, as everywhere in former Soviet republics, has risen dramatically since the fall of the Soviet Union. According to the 2011 Corruption Perceptions Index which measures the perceived levels of public sector corruption in 183 countries and territories around the world. The Israeli score was 5.8 and the Republic of Moldova score was 2.9, in a public sector scale of 0 - 10, where 0 means that a country is perceived as highly corrupt and 10 means that a country is perceived as very clean.[1]

The practical application of the way people ought to make decisions is called decision analysis, with the assumptions of perfect information and rationality.

To my opinion different prescriptions or predictions must be produced regarding various behaviors that will show decision-making that takes place in practice in Israel an dall the countries. For example: supplying a combined explanation for public organizations, with the unequivocal assumption that public

organizations with tender crimes, both of tender conductors and participants are a result of a rational decision which comes about due to «prices» (cost and benefit in perpetrating a public tender crime).

To my opinion, it is improper to talk about rationality decision in Israel and the world, which includes a combination of legal variables such as criminal offence punishment, together with statistical variables such as apprehension probability, that would assist in examining the optimal deterring effect on a tender offender, enables the examination of efficiency of strategy for handling tender crimes in Israel and the world, that have spread as a disease.

Future decision theorists may find insight in such questions as:

• What algorithm would this agent prefer over his current one?

• Can I identify a class of dilemmas which the old theory solves?

Successfully, and of which my new dilemma is not a member?

• Is there a super class that includes both the new dilemmas and the old ones?

• Which algorithm solves the super class?

We have to create, in Israel, a room in our heart for a new decision theory - to convince hardened decision theorists not to *automatically* reject the theory on the grounds that it absurdly one-boxes in Newcomb's Problem. Our purpose so far, is to dissuade the reader of some prevailing presumptions in current decision theory, and more importantly, to convince you that intuition should not be a sovereign judge over decision theories. Rather, it is legitimate to set out to reshape intuitions, even very deep ones, if there is some reward—some improvement of agent outcomes - thereby to be gained.

Rationality is often best pursued without explicit appeal to rationality. We have to create room in our heart for a new decision theory; if you are still satisfied with classical causal decision theory and the method of arguing from intuitive absurdity now is the time to make a change.[2]

One theme which is prevalent in behavioral finances is Heuristic: people and **white collar criminals** often make decisions based on approximate rules of thumb and not on strict logic.

In recent decades, there has been increasing interest in what is sometimes called 'behavioral decision theory' and this has contributed to a re-evaluation of what rational decision-making requires.

Decision Analytics promotes the applications of computer technology, operations research, statistics, and simulation to decision-making and problem-solving in all organizations and enterprises within the private and public sectors. The Journal focuses on predictive as well as prescriptive analytics taking organizations to a higher degree of intelligence and competitive advantage. While predictive analytics, such as forecasting, emphasize the future, prescriptive analytics, such as optimization, enable organizations to choose the best course of action. The combination of predictive and prescriptive analytics can help organizations achieve both efficiency and effectiveness.[3]

In the 20th century, interest has been reignited by Abraham Wald's   (1939) pointing out that the two central procedures of sampling–distribution based statistical-theory, namely hypothesis testing and parameter estimation, are special cases of the general decision problem. Wald's paper has renewed and synthesized many concepts of statistical theory, including loss functions, risk functions, admissible decision rules, antecedent distributions, Bayesian procedures, and mini-max procedures.[4]

The revival of subjective probability theory, from the work of Bruno de Finetti and others, has extended the scope of expected utility theory to situations where subjective probabilities can be used. At same time, von Neumann's theory of expected utility has proved that expected utility maximization has followed from basic postulates about rational behavior[5]

According to my point of view, the subject of crime in general,

and of tender crimes especially is not rationality subject, it is **non-rationality aspect.**

It means that the idea of expected value or expected utility is not practical regarding perpetration a crime, because the rational procedure is to identify all possible outcomes of expected value, and to choose the one action that causes a rise to the highest total 'expected value' - this theory must be normatively wrong and does not belong to crime offenders that make a decision to carry out a crime.

The non rationality aspect: Prospect Theory of Kahneman and Tversky

As mentioned, the subject analysis in this article focuses on how to understand the decision analysis of crime offenders.

The non-rationality aspect that represents the «prospect theory» of Daniel Kahneman and Amos Tversky, meaning, how people manage risk and uncertainty, have renewed the empirical study of economic behavior with less emphasis on rationality presuppositions. Kahneman and Tversky have found three regularities in actual human decision-making: 1. «Losses loom higher than gains»; 2. Persons focus more on change in their utility states than they focus on absolute utilities; 3.The estimation of subjective probabilities is severely biased by anchoring.

The theory of Kahneman and Tversky (Nobel Prize laureates in Economics for 2002), which has been developed over a thirty year period, is, however, highly important in economics and especially in financial economics, according to the subject of decision analysis by crime elements.

Kahneman & Tversky started their research investigating apparent anomalies and contradictions in human behavior, when offered a choice formulated in one way might display *risk-aversion*, but when offered essentially the same choice formulated in a different way might display *risk-seeking* behavior. For example, a crime offender may carry out a crime with guaranteed profit of 200,000$ while the potential profit is of 600,000$, but would not carry out a crime where the profit is 200,000$ and a potential profit of more than 600,000$, but less sure.

A very important result of the work of Kahneman and Tversky is demonstrating that people's attitudes toward gain concerning risks may be quite different from their attitudes toward loss concerning risks.[6]

For example, when given a choice between getting 1,000$

with certainty or having a 50% chance of getting 2,500$, they very well might choose the certain 1000$ in preference to the uncertain chance of getting 2,500$ even though the mathematical expectation of the uncertain option is 1,250$. This is a perfectly reasonable attitude described as *risk-aversion*. But Kahneman and Tversky have found that the same people, when confronted with a certain loss of 1,000$ versus a 50% chance of no loss or a 2,500$ loss often would choose the risky alternative. This is termed as *risk-seeking* behavior. This is not necessarily irrational but it is important for analysts to recognize the asymmetry of human choices.
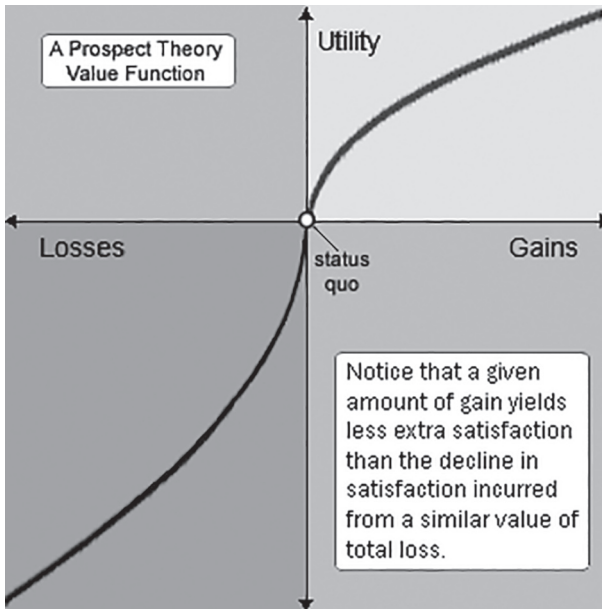
Some of the problems of interpreting crime offender behavior in the face of risk, has to do with the problem of people making decisions on the basis of subjective assessments of probabilities which may be quite different from objective or true probabilities.

Events of small probability that have never occurred before may be assessed as having a probability of zero in decision-making, but this leads to tragedies in which people find they have been playing Russian roulette without even knowing they have been doing so.

Small probabilities add up when chances are being taken repeatedly. A calculator is provided here to show the probability of avoiding a danger given the probability and the number of repetitions of the risk. A noteworthy phenomenon is what happens to the probability of avoiding a small risk event when the probability is increased, say doubled. For example, suppose the probability of being involved in an apprehension after perpetrating a crime is 0.0001. In 20 cases the probability to commit a crime and not being apprehended is about 0.82. If the probability of being involved in an apprehension is doubled to 0.0002, perhaps as a result of commitment to criminal behavior, the probability not being apprehension in 20 cases drops to 0.67.

The point is that while probabilities of 0.0001 and 0.0002 seem too small to be significant, they are not actually zero, and there is a big difference between 0.0001 and 0.0002.

The Prospect Theory of Kahneman & Tversky describes how people choose between probabilistic alternatives and evaluate potential losses and gains:

A Prospect Theory Value Function

Utility

Losses

status quo

Gains

Notice that a given amount of gain yields less extra satisfaction than the decline in satisfaction incurred from a similar value of total loss.

The theory describes the decision processes in two stages: editing and evaluation. In the first one, outcomes of the decision are ordered as a result of some heuristics. particularly speaking, people decide which outcomes they see as basically identical, set a reference point and then consider lesser outcomes as losses and greater ones as gains. In the following evaluation phase, people behave as if they would compute a value (utility), based on the potential outcomes and their respective probabilities, and then choose the alternative which has a higher utility.[7]

A potential felon considers two options: a. there is a 1% chance that the perpetration of the offence will be successful and the gain will be 500,000$; b. the cost will be of 5,000$ as a result of the exposure of the crime by the organization.

Analysis: **the potential white-collar felon** preferred the lottery effect than the value expectancy of the exposure of the crime he has perpetrated.

According to the prospect theory – $v(5,000) < \pi(0.01)v(500,000)$,

therefore, 0.01<v(5,000)/v(500,000)<π(0.01), assuming that the value function for profits is concave.

Another example:

A potential felon weights two option: a. there is a 1% chance that perpetration of the offence will fail and as a result of the exposure I would lose 500,000$; b. I will not commit the crime and not be exposed by the organization and the financial damage will consist of 10,000$.

The subject of crime in general and of tender crimes in particular is in the center of economic, security, social and public activity and comprises the infrastructure of development and economic growth in the Israeli market and that of the Republic of Moldova.

Researches have deliberated over the question, whether white-color felons and regular felons are alike or different in both, motives and reasons, for crime and in their characteristics. The researches have failed to reach an unequivocal conclusion.

The first economic model researchers that have dealt with criminality, have correlated the rational behavior supposition of the criminal who evaluates strategies (Becker, 1968), cost versus benefit and punishment versus gain from perpetration of a crime prior to its execution.[8]

Criminality - economic aspects

The early studies in the field of economics that deal in criminality has corresponded the rational assumption behavior of the criminal who examines the strategic cost versus benefit, the penalty versus gain from perpetration of the offence even prior to its perpetration and the policy of effective law enforcement. According to this model there will be such that would bring about lack of rational worthwhile ness for an individual to perpetrate the crime (Becker, 1968). [9]

A pioneering figure in establishing rational choice theory in sociology was George Humans (1961), who set out a basic framework of exchange theory, which he grounded in assumptions drawn from behaviorist psychology. While these psychological assumptions have been rejected by many later writers, Homans's formulation of exchange theory remains the basis of all subsequent discussion. During the 1960s and 1970s, Blau (1964), Coleman (1973), and Cook (1977) extended and enlarged his framework, and they helped to develop more formal, mathematical models of rational action (see also Coleman 1990). [10]

Differences in how probability information is represented in the white collar criminal mind

Information storage and representation are clearly intimately connected; nonetheless, we believe that the two can be discussed separately because distinct causes of the gap could occur either during storage or in representation. For example, another potential source of difference between description and experience formats is how probability information is represented in the decision maker's mind: one format may explicitly represent probability information whereas the other may not. In the case where both formats explicitly represent probability information in the mind, the gap could still emerge if decision-makers systematically misrepresent probability information as function of information format. Indeed, although frequency information appears to be automatically stored (Hasher and Zacks, 1984), estimates of probability can often be inaccurate (Erev et al., 1994; Lichtenstein et al., 1978; Zacks and Hasher, 2002) and even the same information presented in physically different formats can be represented and subsequently used quite differently (Gigerenzer and Hoffrage, 1995). Although the debate continues, the inference from the description-based choice literature appears to be that probability information is indeed explicitly represented. This conclusion stems from the finding that choice models that explicitly represent probability information better predict choices than models that do not. For example, the mini-max strategy, which simply selects the option with largest experienced minimum outcome, and other choice heuristics that ignore probability information have been shown to have limited success in predicting description-based choices (Brandstatter et al., 2006). In contrast, the most successful models in the description-based choice field have been those that explicitly represent probability information, in particular, "weighted utility" models such as cumulative prospect theory (Tversky and Kahneman, 1992; Tversky et al., 2004) and its variants (Erev et al., 2010). 11

The main subject is Intuition thoughts

Intuition is part of that 'knowing' referred to by Polyani when he declared that 'we know more than we can tell'. An intuition is a recognition or judgment that is:

(A) Arrived at rapidly, without deliberative rational thought;

(B) Difficult to articulate verbally;

(c) Based on a broad constellation of prior learning and past experiences;

(d) Accompanied by a feeling of confidence or certitude;

(e) affectively-charged.

According decision making: The naturalistic decision researcher Gary Klein has estimated that in 80 and 95 percent of loosely structured time-pressured situations decision makers rely on intuiting rather than rational choice.

Burke and Miller found in their study of executives in the USA that 47 percent of them claimed to use intuitive decision making 'often', 37 percent 'occasionally' and only 10 percent 'rarely' used it. The message is clear: the future can overtake us before we've had the chance to collect and analyze all the data which might be out there; the future can also overtake us if we hang around looking for data that does not yet exist. [12]

The paper presents a model of business decision-making that rightly includes intuition at its core. The model was tested in 10 successful Slovenian companies. Our experiences have shown that the model can change the behavior of individuals, groups, organizations and the society. It positions intuitive decision-making shoulder to shoulder with the prevailing analytical decision-making approach .The participants who were asked «*What do you consider to be an intuitive solution?*» answered: decisions based on experience (56%), decisions based on sensations and emotions (40%), decisions based on knowledge and education (23%),

decisions based on an unconscious mental process (11%), and decisions based on personal values and ethics (10%).[13]

An actual defiance of the science f economics that employs models based on rational decision making of human beings, can be found in the study of Kahneman and Tverski, who significantly undermine these models. The researchers have integrated insights from the field of psychology in the science of economics and thus put the round to a new field of research. The researchers have identified a series of irrational rules that add to the rational assumptions. They found regularity in some cases in which people act irrationally (Kahneman & Tversky, 1979). One of the best examples for this is risk evasion. Following is an example that illustrates it: in one of the cases, the respondents have been asked to choose one of two alternatives – to receive certain 100$ or to receive 250$ with a probability of 50%. Most of the respondents chose the first option, although the expectancy of winning 250$ is higher. One of the innovations of the researchers is that they have proven that gain and loss are psychological terms and only economic ones. Their model teaches that the rate of joy in getting 5$ is lower than the grief for loss of 5$. People react differently to the same situation when it is presented as a gain and when it is presented as a loss. Another regularity the researchers have found regarding behavior that is irrational, is realized in the sense of loss. How far are human beings willing to go to avoid the sense of loss? Their conclusion was that loss avoidance arouses the tendency not to admitting the situation and continuing with the suffering. This phenomenon is called by economists «lost costs», meaning, losses that cannot be returned. Although this theory allegedly creates a substantial erosion of the rational choice theory, the researchers think that there isn't any pure rational decision model and that the study of decision and human judgment is characterized in the tension between the rational model that is in the basis of economy and management theory and between psychological considerations that occasionally are not compatible with the principles of rational decision. [14]

Therefore, in light of the stated in professional literature thus far, our starting point is that the characteristics **of white-collar criminality** are compatible to a model of rational decision making to a very limited degree and it would be correct to study an intuitive decision making model that is also based on rationality however very limited one. It seems that this theory can undermine the economic model that deal in crime. This is only another layer in our understanding that although the rational decision model assists the understanding of white-collar criminals' behavior the actual existence of variable related to human psychological aspects that are not compatible with the rational decision model have to be addressed. Although limited irrationality aspect should be considered as it is realized in the criticism on the irrationality theory (the prospect theory), worded Koshran (2001) as follows: Prospect Theory & Customer Choice Alex Cochran October 2001[15]

Another example: **A tender coordinator in a public organization plans to perpetrate a tender offence.** He expects that as a result of a successful perpetration of the offence he will pocket 150,000$. He faces two alternative options to the perpetration of the offence and we shall suppose that the estimations regarding their outcomes are as follows:

If he should commit the offence through alternative a', the damage for the organization will amount to 50,000$ (with an estimation of 70%). If he should commit the offence through alternative b', there is a 33.3% chance that he commits the offence and the damage to the company will amount to 140,000$ and a probability of 66.6% that he commits the offence and the damage to the organization will amount to 50,000$ (an estimation of 30%).

Which of the two plans would the criminal tender coordinator prefer?

In the phrasing of the first problem, the situation is that a successful perpetration of a crime equals 150,000$ and this is the reference point. The outcomes of the plans include the reference point and two possible profits, which are measured according to

the amount of damage caused to the organization.

As expected, the preferences will reveal a deterring from taking risks; the tender coordinator (the potential felon) would prefer that the damage caused to the organization is a definite 50,000$ as compared to a chance of 1/3 of causing damage of 150,000$.

The non-linearity of **the white collar criminal** weight of decision inevitably leads to the violation of the invariance (which means that the order of preference amongst alternatives will not depend upon their description). When two versions of a choice problem are considered equal when they are presented together, they are supposed to bring about the same preference, even when they are presented separately.

In practice, in an irrational decision the requirement of invariance is usually nonexistent, despite its being natural and reasonable.

 This paper's subject stems from the desire and need to deal with the wide-spread and grave phenomenon of the white collar crimes in Israel and the world and especially winning tenders by law offenders, from a constitutional-legal standpoint.

White-color criminality in Israel as at all world is an isolated phenomenon and thus is not considered a fertile research subject.

Law offenders and criminal organizations in Israel and the world invade and continue to try and fortify their hold of the governmental, local and general state authorities, through the use of tenders as a control method and a means to make an illegal profit.

Thus, the guiding line in this article is to accept the re-evaluation of social behavior in decision theory. The subject analysis in this article focuses on how to understand the decision analysis by criminal elements in Israel and the all countries.

In order to deal with my research subject of reduction of the possibility of crime in general and winning tenders by law offenders in particular, this article makes it possible to deal with law offenders in Israel and the world from the aspect of making choices under uncertainty. The non-rationality aspect of the Prospect Theory

of Kahneman & Tversky, that represents the heart of decision theory, and not with the assumptions of perfect information and rationality.

Thus, this paper, having a theoretical as well as a qualitative and practical framework, allows for dealing with a new approach about decision making by law. Then we shall produce the necessary steps to reduce the phenomenon of wcc crime in Israel and the other countries by constitutional - legal standpoints.

References

1.   Corruption Perceptions Index 2011. Results, Transparency International, //www.transparency.org/cpi2011/results l

2.   Yudkowsky Eliezer. Timeless decision theory, 2010. Machine Intelligence Research Institute, the Singularity Institute, San Francisco, CA.

3.   L. Liberti, T. Marchant & S. Martello. Decision Analytics, a Quarterly Journal of Operations Research, 4OR, Journal no. 10288. ISSN Print: 1619-4500 ISSN Online: 1614-2411

4.   L. Liberti, T. Marchant & S. Martello. Decision Analytics,   A Quarterly Journal of Operations Research, 4OR, Journal no. 10288. ISSN Print: 1619-4500 ISSN Online: 1614-2411

5.   Wald Abraham. Contributions to the Theory of Statistical Estimation and Testing Hypotheses. Annals of Mathematical Statistics, 1939, 10(4):p.299–326.

6.   De Finetti, Bruno. Theory of Probability, (translation by AFM Smith of 1970 book) 2 volumes, New York: Wiley, 1974-5.

7.   Tversky Amos & Daniel Kahneman. Advances in prospect theory: Cumulative representation of uncertainty, Journal of Risk and Uncertainty, 1992, 5(4):p.297–323.

8.   Kahneman Daniel & Amos Tversky. Prospect Theory: an Analysis of Decision under Risk Econometrics, 1979, XLVII, p.263-291.

9.   Regev Besora. Quantitative and economic aspects of law enforcement policy of white collar offences in Israel. Thesis Submitted for the PH.D Degree Guidance by Weisbord David, Yakir Plesner. The Hebrew University, Jerusalem, 2008, p.27.

10.   Scott John. Rational Choice Theory from Understanding Contemporary Society: Theories of the Present. Browning, A. Halcli, and F. Webster. (Sage Publications), 2000, P.2. http://www.soc.iastate.edu/Sapp/soc401rationalchoice.pdf   11.10.2013

11. Camilleri Adrian R, Ben R. Newell. Mind the gap? Description, experience, and the continuum of uncertainty in risky choice. In V.S. Chandrasekhar Pammi and Narayanan Srinivasan, editors: Progress in Brain Research, 2013, Vol. 202, Amsterdam: The Netherlands, , p. 55-71. ISBN: 978-0-444-62604-2

12. Eugene Sadler-Smith. Intuition, neuroscience, decision making and learning. Centre for Management Learning and Development, School of Management, University of Surrey, UK. Some Personal Reflections Written Following the Meeting of the Society for Organizational Learning-UK at the London School of Economics, June 23rd, 2006. www.triarchypress.co.uk/pages/articles/Intuition-neuroscience-decision-making-an 31.10.2013

13. Kovacic Vesna, M.S., INTUITIVE DECISION-MAKING – CHANGING HABITS THROUGH NEW BUSINESS APPROACHES, MODELS AND SOLUTIONS ,Institute IRDO; Violeta Bulc, M.S., Vibacom; Urška Battelino http://www. incogibanje.si/upload/irdokonferenca2013.pdf 30.10.13

14. Regev Besora. Quantitative and economic aspects of law enforcement policy of white collar offences in Israel. Thesis Submitted for the PH.D Degree Guidance by Weisbord David, Prof. Yakir Plesner, Prof. The Hebrew University, Jerusalem, 2008,p.31-32.

15. Koshran Alex. Prospect Theory & Customer Choice Cochran October 2001, p.8. http://alexcochran.com.au/wp-content/uploads/2008/04/propect-theory-customer-choice.pdf 11.10.2013