

The Antifragile of decisions adopted by Managers and Engineers Economists working in the Sector of Vulnerable Groups' Social Economy

Măgdoiu Liliana Doina, Rada Ioan Constantin

Abstract— The unprecedented situation of the world today presents an infinite number of paradigms, with most different magnitudes and consequences, given the emergence of new trends such as: globalization, multiculturalism, regionalism etc. Along the stress these paradigms place on politicians, the direction in which they lead us all is still unknown. Finding a remedy for the causes that generate poverty and social exclusion is undoubtedly the greatest challenge existing government systems are called to deal with. At local level there is the trauma and suffering of both vulnerable and high risk groups, victims of various social contexts. These are facing a high deficit of resources, and have no prospect of escaping such fatality. As regards uncertainty and existing risks, managers and economist engineers are called to display a bold attitude. To counteract the fragility phenomenon, they have to adopt antifragile decisions, and benefit from shock. Thus the antifragile would mean more than mere strength or robustness of decisions; it calls managers to make non-predictive choices.

Index Terms— Antifragile, decisions, managers and economist engineers, social economy, vulnerable groups.

I. INTRODUCTION

The fundamental economic changes of recent decades have caused the secondary sector of economy, once the strength of capitalism, to lose its importance. This happens with increasing demand for knowledge-based services, in the fields of banking, management consulting, or IT. Some experts believe that certain economies have entered the "post-industrial era", where most people are employed in services, and the offer is made up of these services. They argue that countries with subsistence economies should abandon production, which is doomed anyway, and go straight to the post-industrial economy based on services [1].

It is said that de-industrialization has happened and continues to happen (if not for other reasons, such as colonization) due to differentiated growth of productivity in the economy. It has negative consequences for the growth of economic productivity and for payments balance, which can not be ignored. The idea that emerging countries could move directly to the postindustrial era, skipping industrialization, is a utopia. One should take into account the limited capacity of services to increase productivity, as they can not represent an engine for development. In addition, services are not really negotiable, which means that the possibility of their export is more and more limited. Low incomes from exports lead to

decreased ability to purchase advanced technologies, which results in economic downturn.

All the aspects mentioned above, as well as others that are added to them, have a strong impact on economic development in emerging countries, generating the appearance of vulnerable groups and the necessity for such groups to develop both socially and economically. It is known that the state, among all goods and services, transfers money from one part of the economy to another. Payments for the social system are the most important transfers mediated by the state, but the state sometimes uses their percentage to affect the level of activity in the economy (fiscal policy) [2]. It is worth pointing out here that a large part of government spending is represented by money transfer, especially in the form of social protection programs, such as financial aid for the poor and insurance against unemployment. These transfers are equal to 10-24% of the GDP in rich countries. Transfer in the form of social spending is much lower in developing countries, so the gap between state spending as a percentage of GDP and the share of GDP produced by the state is much lower in these countries [2].

Important factors that lead to the emergence and development of social economy are: inequality and poverty; employment and unemployment, economic and social policies and others. Of all inequalities, only those related to income and wealth are easily measurable. However, most income-related data typically derive from studies on consumption.

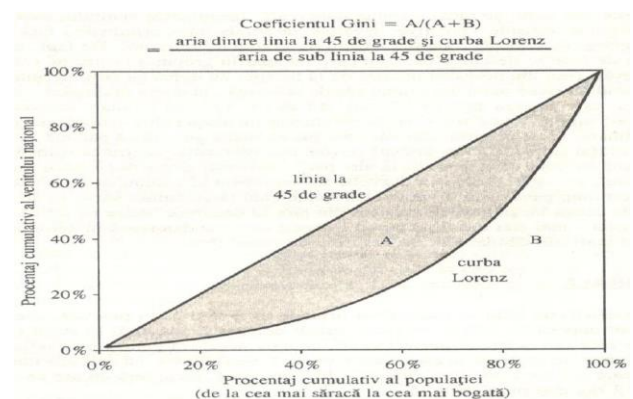


Fig. 1. The Gini index as classic device of measuring inequality

„Ref. [2]”

The chart shows how the Gini coefficient compares income distribution in real life (marked graphically by Lorenz curve - the name comes from Max Lorenz, the American economist of the early twentieth century) with the situation of total

The Antifragile of decisions adopted by Managers and Engineers Economists working in the Sector of Vulnerable Groups' Social Economy

equality (marked by the 450 line the chart). The Lorenz curve describes the percentage of total income earned cumulatively in the economy, by the x percentage of the population referred to at the bottom. The coefficient is calculated by the formula presented in the chart [2].

The inequality indicator is synthetic in nature and tends to attenuate the existence of situations with high social and economic risk. Recent studies support the need to focus on microeconomic data. Focusing on macroeconomic data is useless, as it does not serve fast intervention, on a short-term training, during the stage when social risk situations form [3].

Poverty is the phenomenon that has troubled humanity throughout history and its consequences today are the toughest problems of social life. The concept of absolute or relative poverty, which takes into account the national poverty line, usually set around a certain percentage (50-60%) and inherently linked to inequality, can be extrapolated to the concept of multidimensional poverty. This concept highlights the fact that some people have very few resources for food and clothing, and have limited or even no access to education and health insurance, for example [2], [3].

When debating the topic of poverty, the terms social inclusion and social exclusion are increasingly used. Besides the scarcity of income or consumption associated with poverty, social exclusion additionally involves a lack of participation to normal everyday life and to social activities in their various forms, including jobs. The main individual costs of unemployment are economic difficulties faced by individuals, depression and loss of individual dignity. Where unemployment benefits (i.e. rates from insurance against unemployment) reach 60-70% of previous wages, the unemployed are doing quite well. It is the exception represented by developed countries, but poor countries can not provide their citizens with such benefits. Even in the United States, unemployment benefits provide 30-40% of the last salary. In developing countries, unemployment benefit is non-existent or tends to be very small. Unemployment affects human dignity by the fact that the unemployed are deprived of the dignity they feel as useful members of society. The unemployment also affects the mental health individuals. The factors mentioned here depress the unemployed and make them more likely to adopt extreme decisions.

Unemployment also triggers social costs: huge waste of social resources, social degradation and urban degeneration, reduced skills if people continue to be unemployed for a long time.

Today governmental policies focus on the production of a wide range of goods and services: more exactly on defense, law and order, infrastructure, education, research, health, pensions, unemployment insurance, child care, elderly care, financial support for the poor, cultural services etc. Some governments own state companies that produce goods and services. In some other countries, such services are produced by private firms.

All the factors mentioned above, with their associated features, determine a considerable fragility of social life.

II. THE ANTIFRAGILE OF VULNERABLE GRUPS' SOCIAL ECONOMY

Managers and economic engineers, with the managerial decisions they make in the various forms of social enterprise that develop within social economy (1st degree corporate companies, credit cooperatives, associations and foundations, unions of employees, unions of pensioners, agricultural societies, social enterprise, social insertion enterprises, which are defined by law [4]), must take into account the fragility of vulnerable groups, as well as both the robust and the antifragile measures to be implemented in social economy.

To achieve these objectives they must know very well the mechanism of the Fragile-Robust-Antifragile triad. The concept of triad has been introduced by Nassim Nicholas Taleb, an expert on risk, uncertainties and probabilities in economy. "The antifragile is a guide to living in a world that we do not understand, dominated by Black Swans and the human obsession for the predictable and the safe. Erudite, witty and daring, Taleb's message is a revolutionary one: only the antifragile will survive."

The interests of managers and of economist engineers in the development of social economy arise from the shocks supported by vulnerable groups. These interests flourish and grow when groups are exposed to risk and uncertainty. Some interests benefit from shock; they flourish and grow when exposed to volatility, randomness, lack of order and stress factors, and love adventure, risk and uncertainty [5]. The antifragile means more than strength or robustness to shocks. Resistance helps one withstand shocks and it ca stay the same; the antifragile gets better. A fundamental aspect that we must consider in our analysis is the fact that the antifragile is accompanied by uncertainty and randomness and it benefits from errors. The antifragile presents a unique feature that allows social economy to manage in the presence of the unknown, to face the shocks (needs) of vulnerable groups, without understanding them, and yet to successfully face these groups.

The antifragile helps managers and economist engineers to better understand the fragility of vulnerable groups in social economy, in other words to recognize that the vulnerable situation of such groups cannot be improved without reducing the level of vulnerability; at the same time they have to realize that the allocation of more funds to social economy should be done alongside actions for reducing losses. When being able to operate with antifragile mechanisms, managers and economist engineers manage to follow a systematic and comprehensive decision-making guide in the process of making non-predictive decisions, when their enterprise (business) that functions in social economy is confronted with uncertainty and lack of predictivity, i.e. where the unknown prevails, in any situation marked by randomness, unpredictability, opacity or incomplete understanding of things. Almost always managers and economist engineers are able to detect both the antifragile and fragility using a simple symmetry test: everything that results in gaining more advantages than disadvantages from random events (or certain shock) is antifragile; the reverse is fragile [5].

When events happen randomly, "robustness" is not good enough. On long term everything collapses at the slightest vulnerability, given the cruelty of time [5]. Since it is impossible to obtain perfect robustness in the social economy

of vulnerable groups, managers and economist engineers need a mechanism for the continuous regeneration of the social economy of vulnerable groups, making use, more often, of random elements, unpredictable shocks, stress factors and volatility, instead of accepting to see sufferance as a consequence of the above-mentioned factors. Their task is to build a map of exposure (solutions) as shown in Table 1 below.

TABLE 1
CENTRAL TRIAD: THREE TYPES OF EXPOSURE

FIELD	FRAGILE	ROBUST	ANTIFRAGILE
Black Swan	Exposure to Black Swans – negative		Exposure to Black Swans - positive
Biologic and economic systems	Efficiency, optimization	Redundancy	Degeneration (functional redundancy)
Science/Tech nology Science	Directed research Theory	Opportunistic research Phenomenology	Stochastic research Heuristic, practical tricks Attraction
Human relations Ethics Organization Systems	Friendship Weak Rules Concentrated sources of randomness	Relations Magnificent Principles	Strong Virtue Sources distributed by randomness
Mathematics (probability)	Left asymmetry (or negative asymmetry)	Low volatility	Right asymmetry (or positive asymmetry) Long volatility
Transactions with options Explicit knowledge Probabilistic decision-making	Low volatility Explicit Based on heuristic models	Average volatility Tacit Bazată pe euristică	Connections Based on heuristic convex

„Ref [5]”, pp. 36-39

III. THE UNPREDICTABILITY AND THE LITTLE PROBABILITY OF DECISION IN INSERTION SOCIAL ENTREPRISES

The social enterprise of insertion, as shown by regulations, is a social enterprise that fulfills the following conditions: permanently, at least 30% of its staff should come from vulnerable groups, so the cumulated working time associated to these employees would represent at least 30% of the total working time of all employees; it also aims to fight against exclusion, discrimination and unemployment through the social and professional insertion of disadvantaged people, in accordance with the legal regulations of social economy [4].

Such enterprises are important because they have an obligation to "not only lead a horse to a water source, but also make it drink" [6], i.e. an obligation to ensure, for employees who belong to vulnerable groups (persons with disabilities; Roma; former inmates; drug-addicts; single parents; young people from orphanages; children and young people in various disadvantaged situations; people under any form of protection in Romania) [7], those measures that would ensure their professional and social insertion.

Unpredictability and, to a very little extent the probability

of the decision process, in the management activity of social insertion enterprises, lies in the fragility and the little robustness of actions meant at solving major economic and social problems that neither state agencies, limited by budgetary constraints, nor economic enterprises (companies, firms) that focus on profit, are able to solve; unpredictability of decisions is also associated with the inability to ensure the safety of daily living, usually given by a stable job, a solid system of pensions, guaranteed health care in situations of unemployment and lack of jobs. Besides, unpredictability of decision occurs with the severe inability to provide services of general interest, especially for those who are unable to pay. It is also connected with the fragility information, counseling, access to forms of training, adapting the workplace to a person's ability, the access to a workplace that fits the needs of individuals as well as other measures aimed at supporting both employability and social inclusion.

Managers and economist engineers, by the decisions they make as managers and/or as entrepreneurs in the social insertion enterprise, which can be made in conditions of certainty, risk or uncertainty, are called to build the antifragile. The worst problem of modernity lies in the transfer of either fragility or antifragility from side to side, one receiving benefits, the other (without realizing it) receiving the loss/disadvantage, this transfer being facilitated by the chasm growing between the sphere of ethics and the legal domain [5]. The managers and economist engineers choose to accept the absence of certain benefits that classic enterprises might benefit from, for the sake of other forms of benefits, obtained through social insertion enterprises.

In their heroism, social insertion enterprises, led by managers and economist engineers, collaborate with public services of social assistance, at both county and local level, and with employment agencies, with centers that provide integrated services for medical, psychological and social assistance of consumers and with drug addicts; with specialists in fields such as psychology, social work, addictions, pedagogy, training, employment, medicine, occupational medicine, social economy [4], [8].

Managers and economist engineers make use of sociological research information when trying to adopt appropriate decisions and usually follow the steps of: determining the problem studied; bibliographical study of the problem; formulating assumptions; determining the segment of population to be studied; establishing research methods and techniques; collecting data; analyzing results; drawing conclusions [9].

To make decisions firmer when exposure to certain factors can not be avoided, managers and economist engineers might take into account the following rules of wisdom [6], [10], [11]:

- 1) *respecting time and non-demonstrative knowledge (empiricism)*
- 2) *avoiding optimization; learning to love redundancy*
- 3) *avoiding forecastig results with little probability, but not necessarily those with common probability*
- 4) *bewaring of the "atypical nature" of remote events*
- 5) *guarding against the moral hazard of bonuses*
- 6) *avoiding risk quantification*
- 7) *analyzing the positive, and also the negative Black Swan*

The Antifragile of decisions adopted by Managers and Engineers Economists working in the Sector of Vulnerable Groups' Social Economy

- 8) avoiding taking volatility for the absence of risk
- 9) being careful in relation to the presentation of figures that express risk.

SWAN" *Situation of Social Economy*, International Journal of Modern Communication Technologies & Research (IJMCTR), Engineering ResearchTM Publication, Volume 4, Issue-2, February 2016, pp.19-22.

https://www.erpublication.org/IJMCTR/vol_issue.php?a_bc1=42

IV. CONCLUSION

It is obvious, at least in Romania, that the secondary sector of national economy, usually represented by industry, which used to be the engine of economic development, gave way to the tertiary sector. Has Romania gone to de-industrialization and thence directly to postindustrial economy, based on services, at the expense of production?

The idea that emerging economies could go directly into the postindustrial era, by skipping industrialization, is a utopia. One should take into account the limited capacity of services to increase productivity, as they can not be an engine for development.

Important factors that lead to the emergence and development of social economy are: inequality and poverty; employment and unemployment, economic and social policies, etc. These factors, together with their features, determine the considerable fragility of social life.

Managers and economist engineers, within the various forms of social enterprises they develop in social economy, are called to take into account, while making decisions, the fragility of vulnerable groups, as well as the robust or the antifragile measures to be adopted in social economy.

Unpredictability of decision is also connected to the fragility of information and counseling, to access to forms of training, to the possibility of adapting the workplace to a person's ability, to accessibility to the workplace as relating to the needs of individuals as well as to other measures aimed at supporting employability and social exclusion.

Empiricism does not mean the lack of theories, beliefs, causes and effects; it actually involves avoiding the posture of a dupe.

Măgdoiu Liliana Doina Work place: Lecturer in University of Oradea / Faculty of Electrical Engineering & IT/ Department for Engineering of Automate Systems and Management; education: PhD in the domain of International relations and European studies, Master diploma /Management, License diploma /Economical engineering in electrical, electronical, energetical domain, Management: Formation course in Auditing internal auditor, Management – initiation in leading and organizing small and medium enterprises, Analyst; publications: „Management și comunicare în inginerie” - Editura CA Publishing, Cluj-Napoca, The communication and promotion activities of engineer economists in the field of energetic products (II), The Activities of Engineer Economists in the Human Resources System, Managers and engineer economists between Social Economy Development and obtaining Profit, Marketing Activity of the Commercial Function Occupied by Engineer Economists in the Petroleum Products Market, Management and Communication in Economic Engineering for Increasing Quality Level of Competences of Managers and Economic Engineers for Labour Market etc.

Rada Ioan Constantin, Work place: Univ.Prof.Ph.D. in University of Oradea / Faculty of Electrical Engineering & IT/ Department for Engineering of Automate Systems and Management: education: PhD in Economics, Economist, Engineer, Masters: Teacher formation, Management: Course of formation in auditing Internal Auditor; publications: The communication and promotion activities of engineer economists in the field of energetic products (II), The Activities of Engineer Economists in the Human Resources System, Managers and engineer economists between Social Economy Development and obtaining Profit, Marketing Activity of the Commercial Function Occupied by Engineer Economists in the Petroleum Products Market, Management and Communication in Economic Engineering for Increasing Quality Level of Competences of Managers and Economic Engineers for Labour Market etc.

REFERENCES

- [1] H-J. Chang, *23 Things They Don't Tell You about Capitalism* (23 de lucruri care nu ți se spun despre capitalism), Ed. POLIROM, Iași, 2011, pp. 103-123.
- [2] H-J. Chang, *Economics: The User's Guide* (Economia: ghidul utilizatorilor), Ed. POLIROM, Iași, 2014, pp. 186-199.
- [3] C. Zamfir, S. Stănescu –coordonatori, S. Ilie, *Encyclopedia of Social Development: Economic Inequalities* (Enciclopedia dezvoltării sociale: inegalități economice), Ed. POLIROM, Iași, pp 317-329.
- [4] [1] The Parliament of Romania, *Law no. 219/2015 on Social Economy*, (Legea nr. 219/2015 privind economia socială) published in the M.O., Part I no. 561 of July 28, 2015.
- [5] N. N. Taleb, *Antifragile: Things That Gain from Disorder*, Ed. Curtea Veche Publishing, București, 2014, pp. 15-39.
- [6] N. N. Taleb, *The Black Swan: The Impact of the Highly Improbable* (Lebăda neagră: impactul foarte puțin probabilului), Ed. Curtea Veche Publishing, București 2010, pp.341-420.
- [7] D. Buzducea – coordinator, *Economy Vulnerable Social Groups* (Economia socială a grupurilor vulnerabile): M. Alexiu, Social Economy and Entrepreneurship, Ed. POLIROM, Iași, 2013, pp. 13-51.
- [8] D. Buzducea – coordinator, *Social Risk Groups* (Asistența socială a grupurilor de risc), Ed. POLIROM, Iași, 2010, pp.23-59.
- [9] I. Mihăilescu, *General Sociology: fundamental concepts and case studies* (Sociologie Generală: Concepte fundamentale și studii de caz), Ed. POLIROM, Iași, 2003, pp. 31-42.
- [10] D. Silverman, *Interpreting Qualitative Data. Methods for Analysing Talk, Text and Interaction*, Ed. POLIROM, Iași, 2004, pp. 41-54.
- [11] I.C. Rada, L.D. Măgdoiu, *Forms of Communication and Strategies adopted by Managers and Economists Engineers in the "BLACK*