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CYBERNETIC JUSTIFICATION OF SOCIAL AND ECOLOGICAL RESPONSIBILITY

When modern economies develop and innovate they meet with complexity and instability of the internal and external environments. They try to reach sustainability and adaptability in their development, to achieve a higher level of well-being. This paper deals with question: How can an economy achieve sustainable functioning and development inside a complex environment?

The methodological basis of this study is the systems approach, including Cybernetics and Synergetics, as well as Institutional theory and Schumpeterian theory. The methodology of the systems approach provides us with the following answer:

Economy can achieve sustainable functioning and development due to its structure. Economy based on the self-organizing structure and processes has internal mechanisms of adaptation and development. Economy develops inside the social and ecological environments, they influence each other. So economy should provide the sustainability for its environments, this leads us to need of the social and ecological responsibility.

If society and nature get this responsibility from economy, they will provide more stable environment for economy and improve homeostatic resource of economy through the mechanism of positive feedback. If economic system is not socially and ecologically responsible, the same omnipotent mechanism of the positive feedback will destroy the economic system.

References

1. *Cannon W.B.* The Wisdom of the Body. N.Y.: Norton Library, 1932.
2. *Fomin E., Fomina Yu.* The general systems approach and socio-economic systems (from control to self-organization): general systems approach. Moscow: URSS, 2014.
3. *Gorsky Yu.M.* Homeostatics of living, technical, social and ecological systems. Novosibirsk: Nauka, 1990.

4. *Haken H.* Advanced Synergetics: Instability Hierarchies of Self-Organizing Systems and Devices. N.Y.: Springer-Verlag, 1993.
5. *North D.* Institutions, Institutional Change and Economic Performance. Cambridge University Press, 1990.
6. *Prigogine I., Stengers I.* End of Certainty: time, chaos, and the new laws of nature. The Free Press, 1997.
7. *Schumpeter, J.A.* Capitalism, Socialism, and Democracy. 2nd ed. N.Y.; London: Harper and Brothers Publishers, 1947.
8. *Schumpeter J.A.* The Theory of Economic Development: An inquiry into profits, capital, credit, interest and the business cycle. N.Y.: Oxford University Press, 1963.
9. *Wiener N.* The Human Use of Human Beings: Cybernetics and Society. The Riverside Press (Houghton Mifflin Co.), 1950.