that is the mean value of informational energy, comparatively characterizes several structures or different economic phenomena, whether directly associated or not, interpreted as aspects of the same structure.

The comparison may concern not only the structures revealed by cross section but also various sides of the behaviour of structures in the course of time, which is synonimous with the displacements occurred in the distributions resulting from the time-series. It is thus possible to compare not only simple structures, expressed by a single distribution, but also complex ones: the matrices, also characterized by the mean value of the informational energy of economic processes and phenomena.

We find a specific utility of informational energy in the brief presentation of the analyses performed by means of the group method, thus expressing the concentration trend of the component elements. At the same time, the amplitude of variation of that indicator, compared with an explanatory variable, reveals the existence of a correlation between the phenomena studied and logically spotlights its intensity. The analysis of the degree of organization and investigation of several comparable phenomena with the aid of informational energy confers upon the latter the quality of a statistical thermometer of the systems.

★

According to the second law of thermodynamics, any system of objects which is in a certain state, which can serve as a starting point for carrying out a certain activity will tend to get off from that state if events are allowed to occur in a random order. Entropy*, the second law of thermodynamics, characterizes the qualitative changes of the material universe, i.e. the qualitative degradation of energy, just as heat always moves by itself from warmer bodies towards cooler bodies.

A thermal state of a body whatever, with a given quantity of thermal energy, can be achieved by different distributions of that energy among its molecules or, in other words, by different speeds of the molecules.

Entropy is defined by the formula:

$$H = p_1 \log p_1 + p_2 \log_2 + \ldots + p_n \log p_n$$

where H characterizes the probability of a certain state of the system

$$p_1 = \frac{n_1}{n}; \quad p_2 = \frac{n_2}{n}; \quad p_3 = \frac{n_3}{n}$$

and n represents the total number of molecules (events).

The maximum of entropy corresponds to the instance where the n events are equally probable $p_1 = p_2 \ldots = p_n$ or have practically equal fre-

* A term borrowed by R. Clausius from old Greek, where it defined the concept of evolution.

quencies (on the basis of the great numbers law, probabilities are estimated by frequencies) which means that the system is totally disorganized for all events.

According to statistical mechanics, the disorder of a microstate is measured by the probability of the corresponding macrostate, and the probability of a macrostate is proportional to the number of the corresponding microstates. However, as professor Nicholas Georgescu Roegen [1] has pointed out, disorder is a highly relative, if not quite improper, concept. Something is in disorder only in respect to some objective or purpose.

1. ENTROPY AND ECONOMICS

On stating that the law of entropy is the most economic law of all the laws of physics, professor Georgescu-Roegen points out that thermodynamics has developed from physicist Sadi Carnot's economic problem of obtaining the biggest amount of work from a given quantity of available heat. All subsequent developments of thermodynamics have added new proofs of the connection existing between the economic process and the principles of thermodynamics. It is only with the aid of certain criteria related to economic premises that the concept of *system of entropy* can be understood; for instance, the distinction between available and latent energy. The only reason for which thermodynamics marks a distinction between the heat contained in an ocean and the heat contained in a steamer boiler lies in the fact that we can make use of the latter, but not of the former.

The primary objective of economic activity is undoubtedly the satisfaction of certain basic needs, some biological needs absolutely essential for survival.

Biological life, however, is characterized by a low entropy. The level of these needs presents structures with a clear organization in which necessities are few and are satisfied by little processed objects, forming structures of high organization. As soon as those original needs are satisfied, structures lose their clarity and transparence.

The least urgent needs, i.e. the most distant from their physiological origin, become important. Entropy increases and the organization system diminishes. Since structural evidence wants clarity, investigations have to be undertaken in order to study the needs, preferences and tastes, or other aspects of the complex economic phenomena.

The interpretation of economic processes in terms of entropy reveals the continuous transformation of low entropy into high entropy, viz. an irrevocable consumption, since a certain quantity of low entropy can only be utilized once. Otherwise, every economic accumulation would be eternally durable.

In interhuman relations, man interferes with the second law of thermodynamics. The advertisement that launches a product or stimulates its sale, a manager who wants to rally his assistants or the whole staff in view of carrying out certain actions, an inventor who wishes to put his invention into practice, they all want the public or the people they have to do with to behave in a

Raising to the square the respective percentages in the form of proportions and summing up we obtain the totals of the table hereafter, representing the informational energy.

	1930	1948	1956	1960	1965	1966
Population with stable residence in towns and assimilated localities	0.045796	0.054756	0.097969	0.103041	0.113569	0.145924
Population with stable residence in the rural area	0.617796	0.586756	0.471969	0.461041	0.439569	0.381924
Informational energy	0.663592	0.641512	0.569938	0.564082	0.553138	0.527848
Adjusted informational energy	0.33	0.28	0.14	0.13	0.11	0.06

In view of making later comparisons, it is necessary to adjust the informational energy * in order to take into account the number of groups making up each structure. The adjusted values are shown on the second line of the totals.

Thus, an important decrease is noticed in the degree of homogeneity of the population in Romania, owing to the passing of part of the rural population into the category of urban population.

Computing in the same manner the adjusted informational energy for the structure of the employed population, by branches of national economy [5] (industry & building works, agriculture & silviculture, transport & telecommunication, circulation of commodities, other productive branches and non-productive sphere) as well as for the structure of cultivated areas by groups of culture (cereals for grain, leguminous vegetables for grain, potatoes, vegetables, melons, industrial plants, fodder plants, other plants) the following situation results:

Informational energy	Years			
	1938	1950	1960	1966
Structure of employed population by branches of national economy	...	0.49	0.38	0.27
Structure of cultivated area by groups of culture	0.70	0.49	0.44	0.40

We notice the equal concentration for both structures in the year 1950; however, in the following years the decrease of the concentration degree is

* The adjustment is made according to the formula suggested by Roman Cresin:

$$E_{iaj} = \frac{\sum_{1}^{n} f_j^2 - \frac{1}{n}}{1 - \frac{1}{n}}.$$

more emphatic for the structure of employed population than for the structure of cultivated area, which shows that the population exhibits greater mobility in passing from agricultural activity to non-agricultural activity, in comparison with the slower trends of change occurring in the structure of the cultivated area where cereals continue to hold the main place.

If we also refer to the structure of the population by media we notice that the largest decrease in concentration took place in the structure of the employed population by branches — from 0.49 in 1950 to 0.27 in 1966 — followed by the decrease in informational energy of the structure of the population by media (from 0.27 in 1950 * to 0.06 in 1966), the least decrease being for the concentration in the structure of agricultural areas (from 0.49 in 1950 to 0.40 in 1966.

The integration of the agricultural population in other branches of the economy takes place at a fast rate, the informational energy in the structure of the employed population showing a decrease in the last six years (from 0.38 to 0.27), exactly like in the ten preceding years (from 0.49 to 0.38). Since this process sometimes occurs without any actual change of residence, as a consequence of industrial penetration into the village media, the differentiating of the population from the standpoint of its stable urban or rural residence ceases to be so conspicuous and its informational energy decreases less, comparatively with the informational energy which measures the structure of the occupation, which decreases much more considerably. On the other hand, the transformation in the structure of cultivated areas takes place at a slower rate, viz. the informational energy decreases by 21 points in the first 12 years of the series, by 5 points in the following 10 years and by 4 points in the last 6 years.

Informational energy enables us not only to briefly characterize the phenomena but also to follow up the variation of these structures, by comparing the structures among themselves, by synthetically presenting the organization and concentration degree of the component elements.

3. MARKET SURVEY

The market of a group of products which have in common their finality in consumption such as, for instance, durable household goods, can and even must be studied as a whole, as a structure whose cohesion, interaction processes and balance should be studied. The equilibrium of these forces characteristic of the structure is, nevertheless, unstable as it is a result of the dynamics of human groups and of the exchange of information, which, in this context, explains the use that is made of the income, the way the supply of these goods to the population is effected, the rationalization, adjustment and generalization of human behaviour in respect to the possession of these goods, the co-ordination of these acquisitions, the order of their coming into the household. This structure represents a rigorous determination, ascribable to the logic of consumers' decision.

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* Computed on the basis of the structure of 23.7 per cent urban population and 76.3 per cent rural population in 1950, an estimation made by University lecturer Vladimir Trebici.

Informational energy enables a fine-shaded comparison of a number, however great, of economic and social structures, as well as their ordering by an arrangement starting with the figures representing a maximum concentration and gradually reaching those representing a maximum dispersion (i.e., minimum concentration), or vice versa.

In the table on page 48 the various products are arranged in the decreasing order of concentration of each structure. We can also see the frequency of the clerks' professional group, as well as the maximum frequency within the structure (the workers'group, excepting the case of motor-cars where maximum frequency is reached equally by the engineers & technicians' group, and the case of tape recorders where the engineers & technicians' group has a maximum frequency). Although the economic dominant is determined by the priority participation of workers in the purchase of these goods, if the arrangement had been made according to the principle of maximum frequencies it would have been imposible to present the idea of an hierarchy of structures in keeping with the specific internal connections between the interstructural elements and their mode of organization.

The informational energy indicator has offered us the criterion of an arrangement which takes into consideration precisely the entire movement in each structure and enables a comparison of several structures through their synthetic figures, thus facilitating their objective arrangement, significant for the problem under study.

The weight of the clerks'group among the radio set buyers is 4.2, i.e. close to that among washing machines buyers, which is 4.9. The informational energy in the structures to which the two respective products belong is, however, sensibly different, since the energy degree of the first structure (radio sets) is 0.47, while that of the second structure (washing machines) is smaller, i.e. 0.35. For this reason, the higher percentage (4.9) refers to a smaller informational energy (0.35) and the lower percentage (4.2) to a bigger energy (0.47).

The informational energy indicator synthetically presents the energy of the entire structure, offering an informatory value which otherwise would have lacked, namely the significance of an element of the structure in the context of the force of the other elements.

The informational energy indicator shows the highest concentration with the sewing machines, which represents the organization of the buyers' structure around a wide participation of workers in the purchase of that product, in other words that product is widely common within that social category.

A similar place is held by radio sets, followed by the other products — excepting tape recorders —, which all have structures organized around the main buyers who are workers, including motor-cars where they stand on an equal footing with engineers and technicians.

The lowest organization of the structure is related to refrigerators, since the economic dominant of the workers' participation is the weakest.

The following informational energies result from Table II of the Appendix:

Informational energy and some weights in the structure of several durable goods purchases in the families surveyed by groups of average monthly income

Product	Informational energy	Maximum frequency of the structure (per cent)	Name of maximum frequency
Motor-cars	0.13	37.5	Income group VII
Vacuum cleaners	0.11	34.8	„ „ V
Sewing machines	0.10	28.2	„ „ III
Washing machines	0.09	33.5	„ „ IV
TV sets	0.07	30.1	„ „ IV
Radio sets	0.07	29.4	„ „ III
Refrigerators	0.06	27.0	„ „ IV
Tape recorders	0.05	27.8	„ „ VI

As one can see, the maximum frequencies present in each structure are located between groups III and VII. The highest concentration is in motor cars: 37.5 per cent of the buyers of that product belong to the group of families with the highest income. The lowest concentration appears in tape recorders, which means that the localization of the maximum frequency in the group of high incomes does not hinder the dispersion of those purchases in all the income groups.

The TV sets, radio sets, washing machines and sewing machines have informational energies close to each other: over 50 per cent of the buyers are located in the middle of the range of income groups (groups III and IV, excepting refrigerators where most belong to groups IV and V). This shows the popular use of these goods.

The informational energy of the territorial diffusion of these durable goods has also been studied on the basis of macroeconomic data of the socialist trade, and tables have been drawn up for each durable product. The tables contain data concerning sales on the whole territory of Romania, as well as the respective weights and the inferred informational energies.

Informational energies in a number of durable goods sold in Romania

Product	1962	1963	1964	1965	1966
Gas cookers	0.237	0.149	0.150	0.116	0.082
Refrigerators	0.184	0.156	0.093	0.089	0.060
TV sets	0.171	0.089	0.051	0.040	0.035
Vacuum cleaners	0.140	0.127	0.072	0.105	0.065
Washing machines	0.067	0.037	0.057	0.046	0.043
Radio sets	0.023	0.016	0.009	0.016	0.013
Sewing machines	0.014	0.012	0.013	0.012	0.011

The structures of the sales of each product have the elements grouped around a single, more important, concentration phenomenon, namely the weight of the city of Bucharest. However, as shown by the decreasing direc-

tion and the level of informational energies, the reduction of that concentration is obvious, witnessing an ever wider territorial dispersion of those durable goods.

One of the questions of the Braşov survey referred to the way of creating the available cash to pay the durable goods. In calculating, also in this respect, the informational energy by groups of income, we have obtained:

*Informational energy * in the sources of creation of available cash for the purchase of durable goods in the families surveyed, grouped according to the average monthly income of the family and the profession of the head of family*

Sources of creation of cash	Groups of income						
	I	II	III	IV	V	VI	VII
Savings deposited at the Savings Bank	26.6	50.8	44.9	46.6	59.1	53.5	66.7
Loans from Mutual Benefit Fund	34.4	20.0	26.8	22.8	20.9	30.2	13.4
Other sources	39.0	29.2	28.3	30.6	20.0	16.3	19.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Informational energy	0.018	0.075	0.030	0.048	0.150	0.110	0.250

Sources of creation of cash	Professional Groups				
	Workers	Other professions	Clerks	Engineers & technicians	Other categories of skilled staff
Savings deposited at the Savings Bank	44.7	42.9	46.5	60.3	60.6
Loans from Mutual Benefit Fund	22.6	19.0	34.9	25.3	30.3
Other sources	32.7	38.1	18.6	14.4	9.1
Total	100.0	100.0	010.0	100.0	100.0
Informational energy	0.03	0.04	0.06	0.17	0.20

The economic dominant is made up of deposits at the Savings Bank and the informational energy shows how this concentration trend increases as the income and, respectively, the qualification and specialization degree of the wage earner do. In the maximum income and maximum professional qualification categories the concentration represents about two thirds of the sources of creation of available cash.

* Calculated according to data facilitated by the courtesy of the authors: E. Barat, Radu Paul, Gr. Nistorescu [6].

Let us examine the structure of Romanian exports by groups of goods for the period extending from 1950 to 1966 (Appendix, Table III). Informational energies characterize the displacements occurred in the structure of exports in the sense of their diversification, far more synthetically and more rapidly than the reading of the table. The decrease of concentration phenomena in exports and the concomitant increase of diversification in Romania's exports is illustrated by the diminishing evolution of informational energy: 1950 — 0.130; 1960 — 0.100; 1965 — 0.041; 1966 — 0.040.

The same trend follows from table IV, which shows the structure of the gross industrial output by industrial branches. In respect to amplitude, the decrease in informational energy is here smaller than that in the exports table, which means that in the field of foreign trade the diversification process is more marked than in the industry proper.

Let us place the informational energies of the exports structure simultaneously with those of the gross industrial output structure by branches and with those of the employed population structure by sectors of the national economy.

Informational energy of the exports, industry and employed population's structures

Informational energy	1950	1960	1965	1966
— exports	0.130	0.100	0.041	0.040
— gross industrial output by industrial branches	0.054	0.040	0.038	0.036
— employed population by branches of national economy	0.490	0.380	0.280	0.270

The trend towards diversification is common, thus suggesting a similarity in the inner dynamics of the structures evolution. With regard to amplitude, the decrease of informational energy is more pronounced in employed population, followed by exports, the diversification process being more significant in foreign trade because of the energy level. The levels, however, are different in the energies of the three structures, according to the concentration existing in the year in which the series begins. Although industrial production is diversified by the very nature of the coexistence of several industrial branches, informational energy shows that these diversification processes continue.

In table V we find another model for a structure matrix: the informational energy of the structure of value purchases of durable goods in the Braşov survey.

The informational energy of the substructures, i.e. of purchases in each group of buyers according to the average monthly income and to the profession of the head of family, is shown in Tables VI and VII.

In tables V, VI and VII the groups of buyers are arranged in the decreasing order of concentration of each structure and, at the same time, the frequency present in the structure are given.

The arrangement of buyers' segments in agreement with a statistical criterion taking into consideration only the maximum frequency of an element such as, for instance, group 4 (column 4 in Table VI) does not offer sufficient precision, as it does not take into account the relations between the various durable goods specific to each buyer's segment structure.

Taking into account the informational energy calculated for the sample as whole (0.123), we notice that a number of structures of certain segments of buyers are grouped around that figure, while the other structures are grouped at the extremes, above or below.

Informational energies applied to the indices method may have an important significance. The unsatisfactory character of Laspeyre and Paasche's indices is well known; the former contains the presumption that the structure in the basic period also exists in the current period of comparison, and the latter comprises the presumption that the structure in the current period had also existed in the basic period of comparison. The utilization of informational energy in statistical indices (prices, quantities) would throw a new light on the evolution of structures in time. Any aggregate price or quantity index is built up as a statistical collectivity consisting of interdependent elements of prices and quantities [7] from series which are differently weighted or not, but assuming variations of structure in time. Informational energy will spotlight the qualitative changes of the indices, supplying adjustments that take into account such qualitative changes.

In opinion surveys, the arrangement of the investigated problems according to the amount of the informational energy directly characterizes the degree of truthfulness contained in the replies, the energy of the group surveyed. As an instrument of interpretation and analysis of the statistical data in opinion surveys, the informational energy indicator simplifies, facilitates and contributes to the exactness of the comparison of the same subject by different groups. The simple arrangement of the degrees of the informational expression for the various aspects of opinions and for the various associated factors provides a synthesis of presentation and interpretation regardless of the number of elements in the distribution. A comparison with the initial distribution enables us to obtain measurements of the causal relation, and significant contingencies, interrelations and correlations result, owing to the expression gradation of informational energy.

The highly complex character of market survey, because of the methodological and epistemological interferences and junctions of numerous disciplines, calls for the utilization of a number of research methods worked out by other sciences. [8] — [27].

The application of informational energy, as an investigating method of structures, confirms the deep analogy existing between the present stage of human and social sciences, on the one hand, and the evolution of physics and biology, on the other hand, an analogy particulary spotlighted by the significance of the concept of structure and by the transition from a purely analytical vision to a more synthetical conception, by considering the whole lot of elements according to the relations between the component elements.

The use of informational energy is but a modest beginning in tackling economic analyses within the ample and long range study of the organized complexities, the dynamic interactions and the general theory of systems, the key problem of all the branches of modern science which will enable us to formulate and infer generally valid principles for systems and aggregates.

The concept of structure related to information and the general theory of systems is one of the grand achievements of human knowledge. As Claude Lévy-Strauss [28] has pointed out, "experts quite different, such as biologists, linguists, economists, sociologists, psychologists, communication engineers and mathematicians equally own a tremendous conceptual apparatus and are gradually realizing that that apparatus is a common language for them".

APPENDIX

TABLE I

Purchases made in the last 5 years in the families surveyed, by groups according to the profession of the head of family [6]

Name of product	Workers	Engineers & technicians	Clerks	Other professionals	Other occupations	Total
1. Refrigerators	42.9	39.7	7.1	7.1	3.2	100.0
2. Washing machines	63.7	26.5	4.9	2.1	2.8	100.0
3. Sewing machines	76.4	41.8	5.9	2.4	3.5	100.0
4. Vacuum cleaners	48.5	37.9	8.3	3.8	1.5	100.0
5. Radio sets	73.8	16.5	4.2	2.4	3.1	100.0
6. TV sets	59.7	26.6	6.5	5.2	2.0	100.0
7. Tape recorders	38.9	55.6	—	5.5	—	100.0
8. Motor-cars	45.8	45.8	—	8.4	—	100.0
9. Frequency of professional groups	72.6	16.5	4.9	3.3	2.7	100.0

TABLE II

Purchases made in the last 5 years in the families surveyed, by groups of average monthly income [6]

Name of product	Income groups							
	I	II	III	IV	V	VI	VII	Total
1. Refrigerators	0.8	7.9	9.5	27.0	25.4	11.9	17.5	100.0
2. Washing machines	2.1	8.8	22.2	33.5	21.1	6.0	6.3	100.0
3. Sewing machines	1.2	10.6	28.2	27.0	24.7	5.9	2.4	100.0
4. Vacuum cleaners	0.8	6.1	12.1	28.8	34.8	7.6	9.8	100.0
5. Radio sets	6.6	15.4	29.4	26.6	11.9	5.6	4.5	100.0
6. TV sets	2.4	10.1	21.4	30.1	20.2	7.7	8.1	100.0
7. Tape recorders	5.6	11.0	5.6	16.7	11.1	27.8	22.2	100.0
8. Motor-cars	—	—	16.7	12.5	25.0	8.3	37.5	100.0
9. Frequency of heads of family inquired	10.8	18.2	25.0	24.8	12.2	4.8	4.2	100.0

TABLE III

Structure of Romanian exports (in currency lei), by groups of goods, from 1950 to 1966 [7]

Groups of goods	Years			
	1950	1960	1965	1966
1. Production machinery and equipment	4.2	16.6	18.5	17.3
2. Fuel, mineral raw materials, metals	33.8	37.0	25.3	24.3
3. Chemicals, fertilizers, rubber	1.7	2.2	6.5	5.3
4. Building materials and fittings	4.4	2.5	3.4	3·2
5. Vegetable and animal raw materials (food excluded)	29.7	15.1	14.1	14.3
6. Raw materials for foodstuffs	10.8	9.0	7.3	9.6
7. Foofdstuffs	14.1	11.8	13.9	14.1
8. Industrial consumer goods	1.3	5.8	11.0	11.4
Total	100.0	100.0	100.0	100.0
Informational energy	0.130	0.100	0.041	0.040

TABLE IV

Structure of gross industrial output by industrial branches [5]

Branch	Years			
	1950	1960	1965	1966
Power and fuel	13.2	11.6	9.6	9.4
Ferrous and non-ferrous metallurgy, including ore mining	7.5	8.4	11.5	11.6
Engineering and metal working	13.3	24.0	21.2	21.6
Chemical industry	3.2	6.4	7.0	7.6
Building materials, wood, pulp and paper, glass, chinaware, faience	14.3	12.4	13.3	12.8
Textiles, ready-made clothing, leather goods, furs and footwear	22.6	16.3	14.0	14.1
Food	24.2	18.9	22.0	21.4
Other branches of industry	1.7	2.0	1.4	1.5
Total	100.0	100.0	100.0	100.0
Informational energy	0.054	0.040	0.038	0.036

TABLE V

Informational energy of structure of the expenditure for durable goods in the families surveyed, globally and grouped according to the average monthly income of the family and the profession of the head of family

Product	Frequency of the structure
Refrigerators	8.9
Washing machines	8.0
Sewing machines	4.8
Vacuum cleaners	3.2
Radio sets	12.1
T.V. sets	27.7
Tape recorders	1.5
Motor-cars	33.8
Total	100.0
Informational energy	0.123

TABLE VI

Groups of average monthly income	Informational energy of the structures	Frequency of the vacuum cleaners (per cent)	Maximum frequency of the structures (per cent)	Name of the maximum frequency
Income group 7	0.434	1.7	69.3	motor-cars
In ome group 1	0.226	1.4	42.6	radio sets
In ome group 2	0.157	2.7	40.5	T.V. sets
Income group 5	0.132	5.0	38.6	motor-cars
Income group 6	0.112	2.9	34.7	motor-cars
Income group 3	0.111	1.9	30.4	T.V. sets
Income group 4	0.097	3.8	36.1	T.V. sets
Total	0.123	3.2	33.8	motor-cars

TABLE VII

Groups according to the profession of the head of family	Informational energy of the structures	Frequency of vacuum cleaners (per cent)	Maximum frequency of structures (per cent)	Name of the maximum frequency
Professionals	0.231	2,1	46.5	motor-cars
Engineers, technicians	0.185	3.6	46.7	motor-cars
Clearks	0.176	6.7	46.4	T. V. sets
Other occupations	0.114	2.8	33.9	T. V. sets
Workers	0.095	2.7	29.6	T. V. sets
Total	0.123	3.2	33.8	motor-cars

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UNE METRIQUE STATISTIQUE DES STRUCTURES: L'ENERGIE INFORMATIONELLE

Les phénomènes et processus économiques ont lieu dans le cadre de certaines interdépendances organiques, de certaines structures, où chaque élément constitutif se définit soi-même par sa liaison avec les autres éléments; et c'est en fonction de cet engrenage que se définit de façon globale la structure même. Pour ce qui est de mesurer les transformations qui interviennent dans la dynamique des structures et de décrire de manière comparative la physionomie

de ces structures en régime statique, l'application de l'entropie, c'est-à-dire de la seconde loi de la thermodynamique, fait preuve d'une aptitude spéciale d'évaluation et d'analyse. Ces possibilités sont vérifiées dans l'ouvrage par l'étude des processus économiques de structure liés au marché roumain, non pas à l'aide de l'entropie proprement-dite, élaborée par Claude Shannon, mais à l'aide d'un concept opérationnel transformé — l'énergie informationnelle d'Onicesco.

СТАТИСТИЧЕСКАЯ МЕТРИКА СТРУКТУР: ИНФОРМАЦИОННАЯ ЭНЕРГИЯ

Экономические процессы и явления происходят в рамках органических взаимосвязей структур, в которых каждый составляющий элемент определяет себя связью с другими элементами, а в зависимости от этой связи определяется в общем сама структура. Для измерения изменений, происходящих в динамике структур и для взаимносравнимого описания физиономии структур в статистическом режиме показывается специальная способность развития и анализа, применения второго закона термодинамики, то есть энтропии. Эти возможности проверяются в работе путём изучения экономических структурных процессов, связанных с румынским рынком не при помощи собственной энтропии, разработанной Клодом Шэннон, а при помощи изменённого операционального концепта, информационной энергии — Оническу.