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The Systemic Acquis of Public Administration

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I. GENERALITIES

I.1. Introduction

Certainly, the collocation “systemic acquis” represents a novelty in the terminology specific to the systemic analysis applied to public administration.

Through the extension of other similar words, the systemic acquis represents the methodological and functional basics of the public administration’s systems, with reference to the complexity, cyber features and interactions with the global social system.

As a social system, the public administration shows self-adjustment features that have certain specificity. The principles and the general links that govern the social systems reproduce themselves on the public administration’s level through the reduction of the behaviours’ variety, ensuring the social control through law, persistency in its environment, the homeostasis, sociality and/or sociability.

At the same time, the adjustment and self-adjustment in the public administration system benefits by own mechanisms established through organic laws that ensure hierarchy and adaptive structure with the view of obtaining an appropriate feedback.

Hence, the public administration and its subsystems have a specific systemic behaviour, and catching and describing the process and the basic phenomena that ensure this specificity represents the demarche that we aimed at with regard to the systemic acquis.

I.2. Administration and organisation. Theories and adjacent contributions.

The term “*administration*”, in both theory and practice, is used with more meanings. Thus, through administration it can be understood: “the main content of the activities of the executive power of the state; the system of the public authorities that exercise the executive power; managing an economic agent or social-cultural institutions; a compartment from the units directly productive or social-cultural institutions, which do not directly pursue a productive activity”¹. As a consequence, we can give the administration three main meanings: activity, structure or organization, institution.

In the most general meaning, “the administration” represents one of the most useful human activities meant to satisfy a number of social requests. The administration is an “ancient social fact” that results from the emergence of a specialized apparatus enclosed in the social activities. This social fact will be destined for creating an ensemble of representations that concedes its meaning. The administration exists because it is able to follow, designate administrative phenomena and subject them to a specific regime.²

¹ I. Alexandru, “Administrația publică. Teorii. Realități. Perspective”, Lumina Lex Publishing House, Bucharest, 1999, p. 64.

² J. Chevalier, “Science administrative”, PUF, Paris, 1986, p. 56.

The complex process of administration can be found in any compartment of the social life where “the administration, as an activity, consists of a cautious, rational and efficient action of human, material and financial resources management with the aim of obtaining maximum results with minimum efforts”³.

As a structure, the administration is approached from an organizational perspective. The organization, as an organized human community, can be found both in the public sector and in the private one, at the crossroads or junction of the social, economic or political systems. In the contemporary time, one can even refer to a *phenomenon of organization* supported by a number of theories, namely: the systems’ theory and cybernetics, the contingency and environment theory and the theory of the cognitive capacity.

The theory of the open systems differs and it proves to be powerful in explaining the behavioural aspects in enterprises and public organizations, their implicit or explicit finality. The list of the systems’ theory contribution to the organisations’ theory is long and remarkably summarised by D. Katz and K.L. Kahn (1966) who make an interesting synthesis with regard to the practical consequences for the analysis of effectiveness, power and communication in the public organisations. It is justifiable that, due to the bureaucratic pressure, the open systems tend to close under the pretext of the formalisation of their own rules and procedures. The school of “Tavistock Institute” must be noticed too, especially through a study belonging to E.J. Miller and A.K. Rice (1967).

As the representatives of a “socio-technological” school, Miller and Rice formalise the resources of the systemic analysis in the study of the organisations’ structures. Also important is the work of F.E. Emery (1969) who, in a nutshell, presents the essential aspects of the systemic analysis of the organisations, the technology of the information systems, as well as the analysis of the functions of an information system in management. The cybernetics’ specific contributions are more delicate to identify, as they are more directed towards defining the organisations’ control than to their structure. The interdependencies between control and structure are hard enough to use. R.C. Ackoff (1971) makes an essential distinction between body and organisation, which, in particular, accurately allows defining the frontier of the cybernetics’ fields of application. “If the cybernetics’ methodology adapt very well to the bodies’ management whose behaviour is rational and repetitive in relation as against the simple objectives, but it is not the case for the organisations’ management⁴. The behaviours are not at all rational, nor repetitive; the objectives are lost in the complexity that tears apart the measuring (control) systems”⁵. Its predecessors, Z.S. Zannetos and J.W. Wilcox (1969) express their will to “find the necessary applications of cybernetics in management, but these will not be enough to describe or to fully rationalise the management process”. Nevertheless, according to the authors’ opinion, “determining the objectives, the existence of the tree or hierarchic networks, without loops, the cognitive limits are essential facts of management that cybernetics does not pretend to take them into account, as these shall be handled through the systemic approach of management”⁶. This

³ M. Oroveanu, “Tratat de știința administrației”, Cerma PH, Bucharest, 1996, p.27.

⁴ Meaning the organizations situated on the eighth level of the famous systems’ hierarchy, made by K.E. Boulding (1956). See also B. Lievegoed, “Managing the Developing Organisation”, Basil Blackwell Ltd., Oxford, 1991, p. 24-25.

⁵ J.L. Le Moigne, “Les systèmes de décision dans les organisations”, PUF, Paris, 1974, p. 128.

⁶ J.L. Le Moigne, Op.cit., p.244.

last statement will be strengthened, in the following years, by the development of the study object of cybernetics towards the social systems by deepening the systemic approach of the social phenomena and processes without claiming that the systemic modelling and its embodying in the social cybernetics will fully describe the effects and their profoundness. The organisational theory will more and more expand, by integrating the activity of the psychologists, sociologists, politicians, economists, specialists in management and systemic analysis and by giving an equal attention to the formal and informal, rational and affective, technical and behavioural aspects regarding the organisations' functioning.

The field of investigation of this theory "is virtually unlimited because not only the enterprises, but also the administrations, churches or political parties can be included in this view"⁷. The systemic approach will lead to the situation in which the organisation will have an interest in itself, analysing the processes through which it begins existing as an entity. A system does not limit to a simple game of interactions between the elements connected by interdependency and complementarity relations. A first stage of the systemic approach of the organisations was represented by the *functional analysis*, which focuses on the mechanisms that ensure the organisations' survival and development. The concept of function allows the classification on the internal plan of integration and cooperation through which the organisation keeps its unity and, on the external plan, the processes of adjustment and adaptation through which it guarantees its action capacity. Moving this analysis by transposing the general concepts from the systems' theory would lead to a focus on the components' interdependency and on the transitions with the environment. "The main intake of the systemic analysis was to show that the organisation is far from being a closed system, surrounded by an environment where it finds the energy necessary to exist"⁸. In the organisational theory we also find another approach, *the strategic approach* that considers the organisation not as an ensemble of parts mechanically engaged, but as a continuous, flexible ensemble that corresponds to a multiple game, in which every actor and every group of actors play. The idea, mainly belonging to M. Crosier (1964), is based on the structural analysis and it is supported by the hypothesis that an organisation is structured around power relations, thus resulting in interactions between individuals and groups that form it and that are interdependent. Every actor, individual or collective, carries out a strategy in the organisation, translated through adapting certain behaviours, and integrating in it the constraints that it bears and playing the roles taken upon oneself. The meeting and the confrontation of these strategies create the processes of negotiation and exchange under which the participants try to valorise the power, thus the action capacity upon the others in order to impose their strategy or to improve their position in the organisation. Going back to the organisation-environment relation, we must also highlight the strategies that the organisations develop in order to face the environment, strategies conditioning, at least partially, the study of the organisation. This idea, synthetically expressed by: "Tell me what is your strategy and I will tell you what your structure is", promoted in the works of H.I. Ansoff (1965, 1969) and P. Tabatoni (1968) challenge the view of the famous economist J.K. Galbraith (1967) summarised as follows: "Organisations, no matter your strategies, complete you techno-structures".

⁷ J. Chevalier, Op.cit., p.40.

⁸ J. Chevalier, Op.cit., p.50.

Galbraith's view, based on the "techno-structures" experience, being closer to reality, will be better accepted, especially by sociologists and economists.

The systemic approach is also present in remarkable works, P.R. Lawrence and J.P. Lorsch (1967) "Organisation and environment" that includes the texts of J. Woodward (1965), J.D. Thompson (1967) and J.R. Galbraith (1969). According to these, the main explicative variable of a structure is the degree of uncertainty of its environment. The safer the environment, the more differentiated the organisation's structure must be, this difference generating integrative mechanisms. Logically, the more stable the environment and easier to predict, the more monolithic the structure can be, the decision centres will be less numerous, the relational procedures will be more formalised. Therefore, from an organisational systemic perspective, the ideas of decentralisation or centralisation are being renewed. The structural differentiation is generalising, thus enriching the aspects of the theory of the systems originated in biology and anthropology. These brief aspects of the *theory of contingency* of the organisation to the environment generalises and completes the static view regarding the division of labour and segmentation of organisation, offering new images of the coordination and control, collaboration between groups through the integration and settlement of conflicts resulted from differentiation. The dependence between the structures of an organisation and the so-called "*frontiers of rationality*" are mainly due to the works of J.C. March and H.A. Simon (1958) who thus substantiate a *theory of the cognitive capacity* for the organisations. Regardless of the intention statements, truthful or not, of the members of an organisation, their decisions or behaviours only rarely come to actually highlight a total rationality. Therefore, limits of the rationality of the organisation's behaviour appear which can be explained through the inner limits of the individual or community.

"Incapable of facing alone the information quantity and its complexity, the human bets on his resources, even on the synergy of the individual cognitive capacities in order to dispose of a sufficient global cognitive power, thus facing the complexity of his environment and absorbing a great part of the uncertainty that characterise him"⁹. This conception of each community structure, regarded as a network of limited intellectual capacities, introduces a very practical dimension of the functioning of an organisation which is the foundation of defining the information system of each organisation.

In fact, "the conception of the information system and of the organisation's structure represents the faces of the same coin"¹⁰. If the classic theories, H. Fayol (1916) state the quasi-identity between structures and the information system of the organisation as the single network for the information flow, presently the structure and the information system must be considered complimentary, with defining emphasis on autonomy and specificity.

The administration, as an institution, includes its activity and structure. The view of the organisational theories distinguishes the *institutional trend* that focuses on the transformations, which the organisation subsist to, starting from the moment when this is institutionalised. The institutionalisation offers the organisations a new dimension, making them look like persons, collective subjects, distinct from the component individuals (the objectivation process) and, concomitantly, penetrates the intimacy of

⁹ J.G. March, H.A. Simon, *Organizations*, John Wiley & Sans Inc., New York, 1958, p. 159.

¹⁰ J.L. Le Moigne, *Op.cit.*, p.120.

the individual subjectivity through identification mechanisms (the interiorisation process).

The institutions are never, inside a given society, closed and autonomous entities that find within themselves their own functioning and organising order. They are some joint pieces of the same institutional content, are linked through multiple strings and form a stratified and coherent order. The institutions are contaminated by dominant social values and organising models in force. Like the institutions, “the administration is an integrant part of the social order, by transcribing its essential features, but also contributing to their making”¹¹.

II. THE CYBERNETICS OF THE ADMINISTRATIVE SYSTEMS

II.1. Administrative systems

Using the systemic analysis in the administration and in the administrative research is not new. From the very beginning of the 20th century H. Kendall (1912) was stating: “... to organise means to compute, collect models, assemble different elements, balance systemic operational links, and treat everything like and efficient component of an aggregate”. Once the people got used to the system notion, they began to extend it to a large number of natural, political and social phenomena¹².

Relevant opinions are also present in other papers relevant for the systemic analysis and their application in the administration. Hence, Jacques Mèlèse (1968) was asserting: “To think of an enterprise or of a public administration’s service as a system mean to recognise that any body is composed of a multitude of interconnected parts in a complex manner. These parts are in a continuous evolution under the action of outside universe and are mobilised in order to accomplish the global objectives, often different, to a smaller or larger extent, from the local objectives towards which the trend of self-organising those subsystems is heading”¹³.

The concept of *administrative system* can be sometimes considered equivocal and polysemic. From a systemic point of view, this will be a social entity specific to a development period characterised by a mode of action, logic and a structure that are its own. By emphasising a specific difference, the administrative system will be “an ensemble of administrative facts under interaction, carried out in a certain time frame and that look like an objective reality embodied in the everyday social life”.

The administrative fact, as a distinct social fact, specific to the administration, has the following features¹⁴.

- Is a social fact that represents an action, which is done only inside an organised human community. Hence a series of other features of the administrative fact, depending on the size of the human community, on the nature of the relationships, political regime and the existent form of governing.

¹¹ J. Chevalier, Op.cit., p. 77.

¹² S. Guțu, „Sisteme informatice în administrație”, Științifică și Pedagogică PH, Bucharest, 1984, p. 16.

¹³ J. Mèlèse, “La gestion par les systèmes”, Edition Hommes et Techniques, Paris, 1968, p. 10.

¹⁴ I. Alexandru, Op. cit., p. 102.

- Is an activity subjected to some superior and external values, to which the administration is subordinated;
- Is placed in between the value that it must accomplish and the execution of this value, between the social facts through which political values and social facts that directly determine these values are established.

These features specific to public administration acquire special connotations also for other fields' administrations, where the administrative fact keeps its essence of a social fact subordinated to superior values, political or not, specific to the finalist organisations.

Paraphrasing P. Berger and T. Luckman (1986), the systems of the administration are the result of an evolutive process that comprises:

- *The exteriorisation*, which designates the apparent detachment of the individuals' systems that created them;
- *The objectivation* of the system's elements in the social realities;
- *The interiorisation* through which the administrative facts are projected in the individual knowledge.

The administrative systems have connections between them, as well as with other social systems, connections that determine a series of common features, but also specific differentiations.

II.2. Profound dimensions of the administrative systems' analysis

The analysis of an administrative system assumes the adoption of a triple point of view: morphologic, topologic, and dynamic.¹⁵

a) From a morphological point of view, the evolution of the administrative system is characterised by three movements:

- *The specification*, through which the system is joining the social space¹⁶, outlining their own frontiers. Each administrative system was constituted around a specific action principle that represents its point of anchorage in the global social system. Starting from this action principle, "the specification" assumes gaining a geographic, material or symbolic territory that can grow through successive annexations. This extension is done to other systems' detriment or through the inclusion of some of their subsystems in their area of influence. Through this the system defines its own frontiers inside which certain constraints will exist or will be enforced. The administrative system also disposes of a social basis that is constantly extended, thus enlarging its social action field.

- *The differentiation* grasps the trend towards stratification and hierarchy of the administrative system. Through this, the administrative systems are affected by the social divisions thus losing their heterogeneity and being distributed in divided and hierarchical subsystems. The component elements of the different subsystems can be in

¹⁵ J. Chavlier, Op. Cit., p. 78.

¹⁶ Generally, space is a philosophical category, designating an objective and universal form of existence to the moving substance. This category expresses the coexistence order of the real world objects, the position, distance, size, form and their extension. The social space will be able to designate the global social system (the society) or other subsystems of it.

opposition, thus creating a positive, necessary and beneficial tension in the system in order to transform the administrative systems into “dynamic entities”. The system suggests a certain order. Its existence creates the first cleavage (separation) in the administrative system between the ones who are enforcing the order and the ones who are obeying it. From this perspective, the system will assume the existence of an inequality and contrast relation between its members – a relation that most often appear as a juridical norm. Through the bureaucratic and professionalisation game, the created cleavage deepens, thus transforming and multiplying in a permanent, hierarchic structure of the system. Based in the beginning on a simple division of the social work, the administrative system will progressively build a professional apparatus, strongly differentiated from the rest of the society and formed by multiple and diversified cells that have their own particularities.

- *The unification* is done through a series of symbolic operations, with a view to ensuring the internal cohesion. The administrative system can survive only by removing and attenuating the antagonistic relations between its elements or its subsystems, thus ensuring its functioning as a united, coherent and homogenous “whole”. This unity and coherence are nevertheless fictitious states, purely imaginary, as the system cannot be a monolithic block, without cleaves, a solidified entity, features that belong to the inorganic substance. It must be mentioned that when we state the unity and coherence of the administrative system we refer to the relations between its elements and subsystems. In reality, we can speak about an actual *paradox of the administrative system: the claim that is the contrary of what it actually is in order to continue to be.*

Inside the system there are common interests, as well as the feeling of belonging to the system. As a purely abstract entity, the system gives the unit’s representation of a human group, it constitutes in a unifying instance that determine its order and logic as the essence of its existence. On this instance the authority in the system is created, which does not exercise its power in its own name, but only in the name of the system. The system’s cohesion is also ensured through the production and reproduction of its own representatives that will specifically take action in relation to other subsystems of the global social system, as well as for the solidarity of its components elements.

b) The topology of the administrative system assumes studying it, taking into account the position and the connections with the other subsystems, connections that influence its own configuration. In this way, the administrative system appears to be a component of a more general social order that weights as a constraint. For the administrative system we will limit to studying the topology, successively considering it as an element of the space, institutional structure (the edifice) or social relational structure (the content). Using the topology represents a step towards modelling the administrative system, the topology being especially known as a branch of mathematics, which defines the mathematic structure on a aggregate, with the help of its parts.

By considering the administrative system in *the social space*, we must consider more elements. Firstly, we will emphasise the finding that, in general, the subsystems’ network present a variable complexity: the network can be concise and can be reduced to some subsystems that will take hold of large theories or it can be subtle, assuming complex control systems, spread along the entire social space. In the present analysis we use the notion of *network* based on the fact that in the society the differentiation of its subsystems can be considered a technique of taking hold of the social space in conformity with certain laws and with different effects. Therefore, we obtain a *curvilinear*

grid on the social surface that in fact constitutes a more or less diversified *social network*. going back to the previous considerations, in the society, in relation too its development, the trend is towards the creation of a slim, branched social network that ensures the running of the social order up the smallest sectors of the social life. In this manner was created in the 18th century what the French epistemologist called “The archaeology of science” “a new technology of power” based on the density of the institutional control circuits.

It must be noticed that this evolution is not irreversible. The authoritarian regimes prefer the more compact social networks, with the help of which the network is easier and simpler to control. So, it can be even talked about the possibility of some discontinuities in the evolution of the social networks, as well as weak, imperfect social networks where there are empty spaces through which it is possible that some social phenomena are left outside the set social order.

The weak networks will preserve a certain sphere of freedom, a margin of autonomy. Even so, the social order tends to include all the social phenomena, to be multidimensional and comprehensive.

In the modern time we are witnessing the consolidation and increase of the complexity of the systemic connections of each social space, which triggers a burden upon the social constraints. Therefore, the social order has the tendency to diversify on “regional fields” (political, administrative, economic, cultural, religious...) relatively specialised and coherent and that regroups an ensemble of interacting subsystems. As a conclusion, in the social space the evolution of the administrative system has the following features:

- It is embodied in a global process of social differentiation. Therefore, its structure must be diversified in relation to the complexity of the social control system;
- It is embodied in a larger space of social connections and maintains rigorous relations with the political system.

The topological dimension is shown in the society also through the existence of a institutional structure that forms the *social edifice*. As a consequence, the systems and subsystems will be created according to a certain *architecture* substantiated on:

- *Stratification* that assumes the existence of a pyramidal system having as its base: “institutional cells”, atomised and well delimited; on the intermediary level: middle institutions or micro-institutions that cover a more extensive social surface (administrations, parties, institutions etc.); at the top of the pyramid, macro-institutions that cover large social areas (the administrative, politic, economic system etc.). The stratification places the social subsystems in relation to the social coverage area and with the systemic delimitations specific to each of them. It must be noticed that also for the administrative system a specific similar stratification can be found. The stratification describes a more general systemic property relating to the systems’ decomposability.
- *The articulation* is a consequence of the fact that the social order is presented as a network of systems (subsystems) “in cascade” that is successively manifested in order to ensure the total coverage of the social space. Thus we can consider the family and the school as systems that represent founding

steps of the socialisation destined to transmit fundamental values on which the entire social order rely. In the social order every system is bounded, articulated to another one downstream situated.

- *The hierarchy* derives from the way of building the social order around a “pole” or “dominant node” that represents the centre of gravity around which the general cohesion of the social space is ensured. The different subsystems will be situated at a greater or smaller distance from this pole against which their hierarchy will be done.

As a result of the above, an administrative system disposes of a specific cohesion of the different component elements. At its turn, each of these elements also have their own cohesion, which in fact reproduces the systemic crystallisation process existent in its supra-system.

It can be said that the administrative systems are found in all the stages of the socialisation process, beginning with the school and ending with the institutions corresponding to the “final refuge”. Hence, the roles of the administrative systems are very diverse. Finally, we must also notice the variable position of the administrative system in the social hierarchy.

The social content expresses the reality existent inside the social space, a reality characterised through a transversality of the affiliations and functions. This is manifested through each subsystem that takes upon itself an area of action on the territorial level and a force of intervention that does not imposes a rigid behaviour. Thus, the territories and functions of each subsystem intersect, the social values have the tendency to move between the subsystems. All these are consequences of the participation of all the subsystems of the social space to the same socialisation process that essentially follows and promotes the same fundamental values.

Therefore, in a social space, an administrative system is on one hand *determinant* for other subsystems and *defined* through these. The administrative system belongs to a global order, which justifies certain resembles with other social systems, as its features depend on the type of the social space in which they are found.

c) The *dynamics* of an administrative system reflects the reality that this evolves in relation to the external pressures which it is subjected to, but also to the effects of the connections between the subsystems that form it. Even the content and the meaning of the administration will be permanently readjusted in accordance with the social expectations and with the strategies of its representatives.

II.3. Cyber features of the administrative systems

The idea of studying the cyber features of the administrative systems is not exactly new. Though a happy coincidence, this demarche can be even linked to the coming out of the cybernetics notion. Thus, it must me mentioned that in 1834, in a classification of the sciences, made by the French Encyclopaedia, the scholar L. Ampère also introduced a category of the sciences that did not existed until then, among which he also mentioned the science of cybernetics, defined as “the science of governing the society”¹⁷. Excellent contributions for the substantiation of the systemic-cybernetic

¹⁷ E. Scarlat, Nora Chiriță, „Bazele ciberneticii economice”, Economica PH, 1997, p. 18.

approach of the administrative actions come from Lucian Mehl who publishes a series of twelve studies on the topic “Cybernetics and administration”¹⁸. Mehl resumes then the studies and presents, in a unitary manner, a cybernetic theory of the administrative action through which the cybernetics is used in the science of the administration as “the theory of behaviour and structure, management and adjustment of the complete complex systems”¹⁹.

Positive opinions can be also found in the Romanian literature. We mention the opinions of Professor M. Oroveanu (1996) according to whom “the cybernetic theory represent a contribution to the profound knowledge and to emphasising the social phenomenon’s values, the originality of the social phenomenon and, therefore, a completion for the sociological theory of the administration’s activity”²⁰. Openings for the use of cybernetics in the social modelling are also offered by M. Păun (1997), asserting that “an important contribution to the improvement of the methods of systems’ organization and management... was also made by the use of the systemic-cybernetic concept through which any part of the reality can be defined as a system or subsystem in which elements, processes, connections, states, environment and objectives are identified”²¹. With all the efforts made, the last decades have not showed noticeable progresses, as “the most advanced attempts in this field stop at the cybernetic model proposed by Lucian Mehl”²².

From the multiple definitions of the system we will use for the studying of the administrative activity the one through which the system is “an ordered ensemble, formed by interacting elements, having a particular aim, towards which it hits based on a plan”²³. This complete and enough detailed definition points out, as we will see in the following, fundamental ideas, usable also in the modelling of the administrative systems.

The three essential elements that result from the definition set forth are: the ordered ensemble, the aim and the plan. These are also found, even if not explicitly or with the same expressions, in the previous subchapter regarding the profound dimensions of the administrative systems’ analysis.

Hence, as a *ordered ensemble* of the elements and its interacting subsystems, the administrative system belongs to a “global order”, an order also found inside of it and owed to “the stratification, articulation and hierarchy”. We also mention here the tendency, manifested in the social space to which the administrative system belongs, to “disseminate the social order up to the smallest sectors of the social life”.

At the same time, because the administrative system forms “around a principle of action that is specific and represents its anchoring point in the global social system”, we also find its aim. A more general aim of the administrative system also results from its belonging to the social space, and from the fact that it participates, along with the other social subsystems, in the same socialisation process, resulting that this “follows and

¹⁸ L. Mehl, “Cybernetique et administration”, in “Revue administrative”, 1957-1964.

¹⁹ L. Mehl, “Pour une théorie cybernétique de l’action administrative” in G. Langrod, “Traité de science administrative”, Mouton, La Haye, 1966, p. 781-833.

²⁰ M. Oroveanu, Op. cit., p. 401.

²¹ M. Păun, “Analiza sistemelor economice”, All-Educational S.A. PH, Bucharest, 1997, p. 13.

²² I. Alexandru, “Curentele de gândire privind administrația publică”, Economica PH, Bucharest, 2000, p. 57.

²³ A.R. Johnson, E.F. Kast, E.J. Rosenweig, “The Theory and Management of Systems”, in G. Langrod, Der Nutzen der Allgemeinen System theorie in der Verwaltungswissenschaft “Die Verwaltung”, Zeitschrift für Verwaltungswissenschaft 5 Band, Haft 2, Duncker & Humblot, Berlin, 1972, p. 130.

promotes the same fundamental values”. The aim of the administrative system will be able to be readjusted in accordance with the “expectations and the strategies of its representatives”.

Even though it not explicitly presented, the necessity of the existence of a plan results from the administrative system’s participation to the “social edifice” and its integration in the “social content”.

An administrative system, irrespective of the social space that it belongs to, has a series of cybernetic features found at the intersection of the administrative science with the science of cybernetics and the general theory of systems. Emphasising and justifying those gives the administrative systems the features of the cybernetic systems, thus being able to define and use *the cybernetic-administrative systems*.

As we said before, L. Mehl gave important contributions to the substantiation and development of the theory of cybernetics of the administrative actions. Following the idea of the systemic integration of the administrative actions in the social actions, L. Mehl divides the latter in three big categories, namely: *accomplishing* activities, *leading* activities or *guiding* activities, and *axiological* activities.²⁴

The synthesis, done by S. Guțu (1984), of the typology of the social actions stated by L. Mehl emphasises the following conclusions:

- The *accomplishing* actions are those through which the system’s aims are reached, namely those achieving the final product of a *private institution as a social system*.
- These are subjected to a “*guiding*” made of dispositions, commands, adjustments and control, or a series of so-called actions of “*second degree*”, indirectly productive and auxiliary as against the targeted objective, but absolutely necessary in order to fulfil it. In this situation are, in fact, the *administrative* actions, as the author concludes.
- The guiding activities are directed and controlled, at their turn, by the *axiological* activities that are essentially of a political nature and that determine the system’s values, “its finality”.

The administrative system is being shown to us here as a subsystem whose inputs are defined through a subsystem peculiar to the axiological activities, and the outputs are administered and assimilated by a subsystem of the accomplishing activities. All the three subsystems interact and form the structure of a social system, which can be an enterprise, a public institution or even the public administration’s system, or one of its subsystems. By also following the work of S. Guțu (1984), the foundation of the cybernetic theory developed by L. Mehl, we can emphasise, from the cybernetics point of view, certain structural and functional features of the administrative system:²⁵

The environment of the administrative can have a diverse structure, as it can be composed, for example, of the other subsystems of one enterprise’s system or of the other subsystems of the global social system in the case of the public administration’s system.

The inputs are a consequence of the administrative system’s connections with its environment. The main types of inputs in the system can be:

- The information and the information technology elements, including the constitutive elements of the “database” and the decision’s support systems;

²⁴ S. Guțu, Op. Cit., p. 24.

²⁵ S. Guțu, Op. Cit., p. 39-41.

- Human resources;
- Financial or material resources covering the system's logistic needs.

The internal structure. Generally, for a system, its structure includes elements (subsystems) and internal connections. Out of methodological reasons, in the internal structure of an administrative system we find internal factors, as well as functions and subsystems.

- *The internal factors* specific to the administration can be considered:
 - ⇒ “the products” obtain by transforming the information. These “products” can take the form of decisions or other organising activities;
 - ⇒ The commands (orders, dispositions) supported by the execution's control that will form loops of adjustment;
 - ⇒ The internal methods regarding the human and material resources of the system, through which the rules and the human and material support for the administrative activity are established.

■ *Functions and subsystems.* The functions inside the administrative system are subordinated to its purpose, and they can be permanent or temporary. The functions have as correspondent, from a structural point of view, regroupings of the system's elements represented by subsystems. The order and the existent interactions in the administrative system induce these features also to its subsystems. The aim of a subsystem consists in achieving some specific functions that derive from certain objectives of the system. Reaching them is carried out according to a plan that is in fact a component of the general action plan of the system.

In an administrative system, as in other systems, we can identify three important subsystems: a *managed* system, whose output controls the input of the entire system, a *management* or *decisional* subsystem, whose output represents the input of the managed subsystem and a *reaction* subsystem that transmits the output of the managed subsystem to the input of the decisional subsystem²⁶.

The adjustment process. The adjustment is an iterative process through which is ensured the execution of functions and tasks in accordance with the plan. The structure of the adjustment process proposed by S. Guțu (1984) is presented in figure 1.

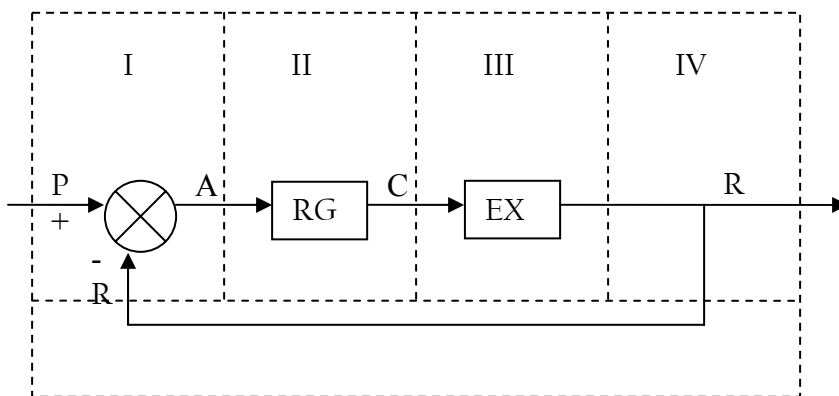


Fig. 1. Adjustment in the administrative system

²⁶ D. Rădulescu, S. Minoiu, E. Stan, „Introducere în teoria sistemelor”, Științifică și Enciclopedică PH, Bucharest, 1978, p. 30.

P – plan; R – accomplished; A – deviation, C – commands, RG – adjusting body, EX – factor of execution; I, II, III, IV – stages of the adjustment process.

I – comparing the results with the plan; II – establishing the commands; III – executing the commands; IV – measuring results.

The main actions of the adjustment process are considered the following:

a) Assessing and comparing the obtained results with the proposed plan, thus resulting the deviations against the plan;

b) Establishing the deviations' causes, as well as the necessary measures with a view to approaching the plan's objectives;

c) Transmitting the commands to the execution factor;

d) Following the results and resuming the cycle.

The information accompanying the adjustment process in all the four stages closes a circuit that is called an *adjustment loop*. The ensemble of the adjustment loops will constitute the reaction subsystem of the administrative system (fig. 2).

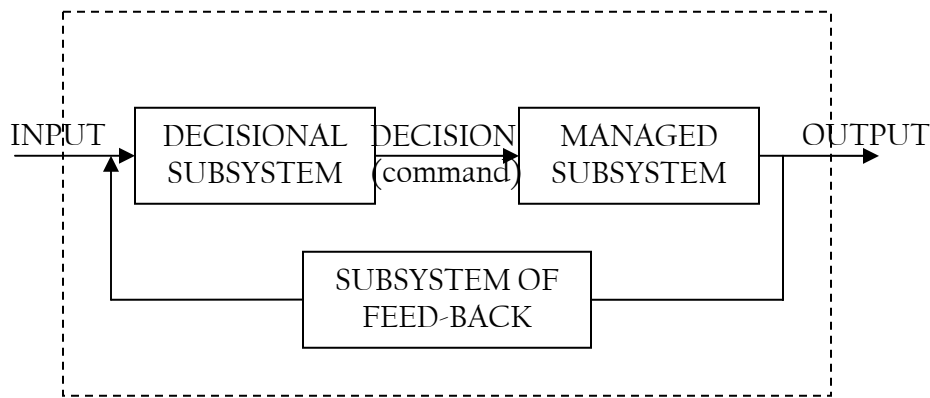


Fig. 2. The subsystems of the administrative system

Being part of the social systems' category, in an administrative system the changes or transformations of a phenomenon or process are rooted in the interaction between the external factors and the internal ones. The correlation between the causality and the interaction must be related to the causality process. Often, the cause is defined as interaction, and the effect as change, resulting from the interaction. As a consequence, it cannot be assumed that there is no point of contact between change and interaction and that no change takes place in the interaction, but only as a result of it. Tackling the causal relation through ascribing it to time, the *reverse link* phenomenon cannot either be ignored, which expresses the reverse action of the effect upon the generating phenomenon.²⁷

The reaction loops are an expression of the reverse (feed-back) link (connection) specific to the cybernetic systems. The notion of "*feed-back*" gained a terminological and linguistic generality.

Generally, the decision and the command aim at bringing the output to a certain level, a superior one. In this case it is said that the system uses a *negative feed-back*.

²⁷ I. Deleanu, "Introducerea în teoria reglării sistemului organelor statului român", Dacia PH, Cluj-Napoca, 1997, p. 13.

Connections inside the administrative system. In order to describe and understand the concept of administrative system, the causality is presented as that form of connection or dependence through which the interaction of some subsystems generates “either the system’s change, or the system’s transformation into another, or the maintenance of its quality”²⁸.

Therefore, from the traditional formula $A \rightarrow B \rightarrow E$, meaning the A phenomenon, by acting upon the B phenomenon generates an E effect, we obtain the formula $A \times B \rightarrow E$, meaning the interaction between system A and system B generates an effect E. So, it is emphasised that in the administrative system “the interaction is more comprehensive than the cause or causality”²⁹. The essence of causal determinism is constituted from³⁰:

- The idea of structure, of determined order;
- The idea of production, of genetic reaction from cause to effect, in the sense that nothing can avoid the causal generation;
- The idea of an objective connection and interaction, of the necessary and logical character of the processes’ display, which, without explicitly correlating it, does not exclude the role of chance, of finality and, therefore, neither the probabilistic approach;
- The idea of the possibility of knowing the method or even the “mechanism” of determination and, on this basis, of the scientific forecasting.

As a consequence, in the administration’s system there is a series of connections between the elements and the system’s subsystems, between the system and the environment. The adjustment loops, as an effort of the connections and objective interactions, can be also met on the level of each subsystem, at the system’s level, as well as the level of the environment. The loop existent at the level of the environment exceeds the framework of the given system and it reaches the level of a more complex global system.

The *outputs* of the administrative system are, like the inputs, an expression of the relation between the system and the environment. These relations imply an influence of the environment upon the system – diminished by the internal adjustment phenomenon (passive defence) – and, on the other hand, a system’s action directed towards the environment (active defence). The result of this rationalising double action is the balance maintenance, a fact that generates the system’s existence, the stability of its functioning.³¹

The need for a pluridisciplinary approach of the administrative system is based on the following main arguments:

- The general theory of systems states the thesis of the universality of the concepts of system and structure, which assumes the use of a scientific and methodological plurilanguage;
- The administrative system is a social system and thus obtaining its model is based on the analysis of the social phenomena, behavioural substantiation,

²⁸ O. Băncilă, „Cauzalitatea în filozofie și știință”, Științifică PH, Bucharest, 1969, p. 48.

²⁹ I. Deleanu, Op. cit., p. 14.

³⁰ Grunberg, “Determinism și libertate”, Politică PH, Bucharest, 1973, p. 280.

³¹ S. Guțu, Op. Cit., p. 41.

linguistic formalisation and of course the use of the modern mathematic methods;

- The administrative system is a complex system, strongly anchored in the social reality. Emphasising its role and influences implies the collaboration of scientists and economists, sociologists and psychologists etc.;
- The administrative system is made evident as a cybernetic system. The cybernetics and the adjacent sciences, namely the information theory and the organisational theories, have known an unprecedented development, and the extension of their area upon the administrative actions also involves assuming the methods of the mentioned sciences.

III. The systemic approach of the public administration

III.1. The necessity of a systemic approach of the public administration

The last decades of the 20th century emphasise as important concerns of the researchers and specialists, political men and governors, those with regard to the design of the public administration models. There are either European models meant to contribute to a real European integration, political, economic, cultural etc., or there are more or less comprehensive regional models, the main problems arising are regarding the existence of such models, as well as their actual materialising.

The systemic approach of the public administration provides the basis of a solid and rigorous demarche for an ideal model of the public administration that can include all the advantages – wanted for any administration, namely: nationality, effectiveness, optimum service for the citizens etc.³²

We will not tackle the major, even impossible, difficulties of obtaining such a model, but we will try to defend, with arguments, the need for applying a systemic analysis as a method of research of the administrative phenomena and processes. By public administration we will understand “that activity referring mainly to organising and ensuring the execution, but also directly executing the Constitution’s provisions, all the normative acts and the other juridical acts issued by the state authorities”³³.

But, as professor I. Alexandru (2000) is stating “in order to accurately define the public administration’s role under the rule of law, a more comprehensive systemic analysis is needed, which – exceeds the structural and functional analysis – aims at studying the relations between the system’s elements, as well as between those and its ensemble and the other elements of the social system. In this way it is possible to make the distinction between the internal relations of the system (that are considered relatively subtle, being especially acknowledged in juridical norms) and the system’s relations with the social environment”³⁴.

Supporting the need for a systemic approach of the public administration is concisely presented also in a series of studies that belong to well-known and recognised

³² I. Alexandru, “Structuri, mecanisme și instituții administrative”, vol. II, Sylvi PH, Bucharest, 1996, p. 140.

³³ Al. Negoită, „Drept administrativ”, Sylvi PH, Bucharest, 1996, p. 3.

³⁴ I. Alexandru, “Curențe de gândire privind administrația publică”, Economica PH, Bucharest, 2000, p. 21.

personalities in the field. From these we notice the work of the Greek professor J.M. Decleris “*Systemic Theory of public administration. Main problems*”³⁵.

Decleris’s view emphasises the following:

◆ An integral systems theory is extremely important for the public administration. While the private organisations and the non-profit organisations were willing to receive and even experiment the systems general theory, the public administration showed only a partial interest for it, by adopting and adapting to real needs of some systemic analyses methods and techniques., especially information management systems, decision support systems, political analysis, assessment methods etc. It must be noticed that this partial interception of the systemic approach took place in countries with a moderate tradition in the public administration, like the Anglo-Saxons, while in the continental countries remained strongly attached to the culture versus “Administrative Law”. Such a development led for a moment to a problem of the “Systemic General Theory”, versus “Administrative Law”, but the recent French “*administrative renewal*” (began in 1989) and the First Greek Program of Administrative Reform (1992) clearly shown that the systemic approach is not compatible with the “Administrative Law”.

◆ In fact, the systemic analysis is very necessary in the public administration because of the increasing complexity of the public problems. Due to their magnitude, the present public problems appear difficult at a time and many persons speak about a new era of “non-governability” and chaos or at least a persistent “adversity”. But this is not exactly the issue. The existent uncertainty and confusion do not have to be associated to an important delay in the public administration systematisation. The complexity can be conquered through complexity, and the systems theory represents the only answer to: how can the modern public administration reach the expectations of the users of its delivered services?

The problem is not to reduce the fields of the state’s activity, as some economists considered, but it is one regarding the improvement of the administrative services with the help of the science of systems and technological innovations, namely the information technology.

◆ With regard to the problem of the public administration’s “model”, Decleris (1992) considered that: “a valuable systems science for the public administration, in order to deserve its name it must start with a satisfying model of its system.

III.2. Systemic models of the public administration

We must identify the public administration in the *broader governance system*, known in the dictionary as the “state”. This allows us to distinguish the borders of the public administration and to describe its connections with the other subsystems of the state”³⁶.

³⁵ Justice Michael Decleris is the vice-president of “The Hellenic Council of State”, president of “The Scientific Board” and professor at “The Hellenic national School of Public Administration”, as well as the Universities L.L.M., J.S.D. (Yale). The paper “Systemic Theory of Public Administration. Main Problems” was published in the volume “Deuxième école européenne de systémique”, Strasbourg, France, 1992, p. 149-153.

³⁶ J.M. Decleris, Op. cit., p. 149.

Such a model was proposed by Decleris (1986) himself. According to this model, the public administration is the most important processor of the demands (inputs) of value in the governance system, demands that vary against social complexity. Such demands of value are generated by the public problems, and their processing represents a type of conversion into quantity or/and quality through a series of public decisions.

In this series of public decisions, which belong to the different components of the governance system, the decisions belonging to the *Public Processor* mainly refer to the *implementation* stage, which assumes the small level policy making and the discretionary power. Nevertheless, the system's model clearly shows the impact of the public administration upon the *programming* of the processed demands and, hence, the *interdependence* of the policy making and implementation processes.

This fundamental observation offers the modern meaning of the separation of powers in the state and emphasises the importance of the bureaucratic administration in the complex societies.

Equally important are also the interactions of the public administration with the *Filter* and *Control* components, verified by the mass-media, groups of interest (*Filter*) and juridical courts in the entire policy making process (fig. 3).

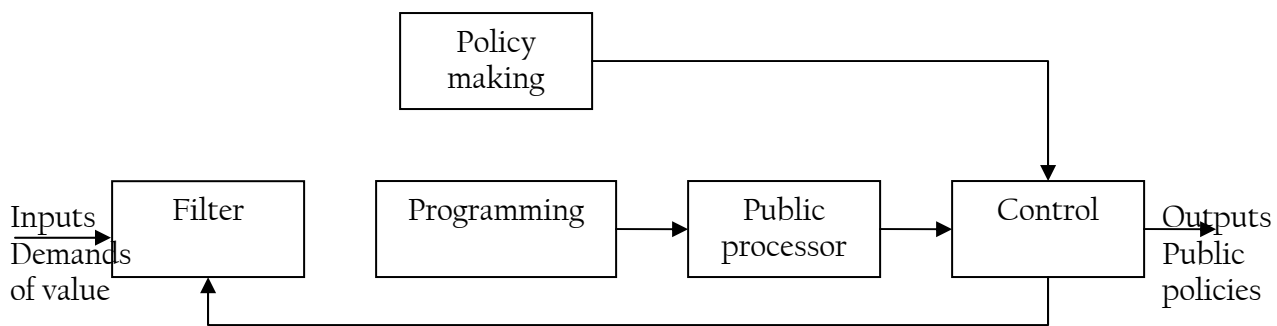


Fig. 3. Decleris Systemic Model of Public Administration

This basic model of the public administration must be accompanied by a detailed model emphasising:

- a) Its internal structure;
- b) The public policies network that represent the specific administration.

Both models can vary in space and time and are currently in a continuous administrative reform process.

◆ For the projection of the detailed *structural models* of a specific administration the conclusions of the organisational theory can be taken into account. Decleris stresses that “we must take into account that, even though some organisational theories are available in the public administration, this is an organisation with personal emergent qualities inside which *the search for the public interest by adequate means and procedures*” is the most important quality³⁷. This consideration establishes the limits of the present trend to equally approach all the organisations, both public and private.

³⁷ J.M. Decleris, Op. cit., p. 150.

Other important emergent qualities of the public administration are considered to be the *hierarchy* and *continuity*.

The models of structural system of the public administration must reflect its qualities.

◆ Nevertheless, the *integrality* of the public administrative model is still missing.

The existent structures have developed during the centuries in an empirical and fragmented manner, and their whole is far from being a model for a national and coherent system of action.

The reform is necessary not only in the spatial systems (for example, the devolution), but also in the projection and coordination of the numerous structures, mechanisms and institutions of the public administration, taking into account the broad communication potential provided by the information technology.

The present administrative structures are so numerous and large, so that only a systemic model can help *ordering* the total conglomerate.

◆ The second category of systemic models needed in the public administration must be defined as *functional*, a word referring to the aims and objectives of the public policy making. In the systems logic, the functional models come before the structural ones, which are projected only after the establishment of the functional ones.

The basic structure of the public policies that will be done by the public administration represents such a predominant functional model and aims at clarifying the interrelations between these policies.

The reality confirms the fact that very few public administrations have a general view upon their activities, transposed in a significant model. Therefore, few governments have a coherent idea about the real impact of their policies upon the society. Under these conditions, no effective control is operable.

In Decleris (1991) a simplified model of public policies is presented, based on a system with seven components, including:

- The system of values (policies of human rights, against criminality, in favour of arts etc.);
- Social communication (policies of education, science, research and technology, mass-media etc.);
- Social hierarchy (social policy, health, housing etc.);
- Governance (state's organisation, budgetary and tax policy, administration's reform etc.);
- Control of the environment (environmental policy, agrarian management, urban and regional planning, sustainable development, economic policy etc.);
- Emotional systems (family policy, ethnic policies etc.);
- Personality (individual freedom, creativity etc.).

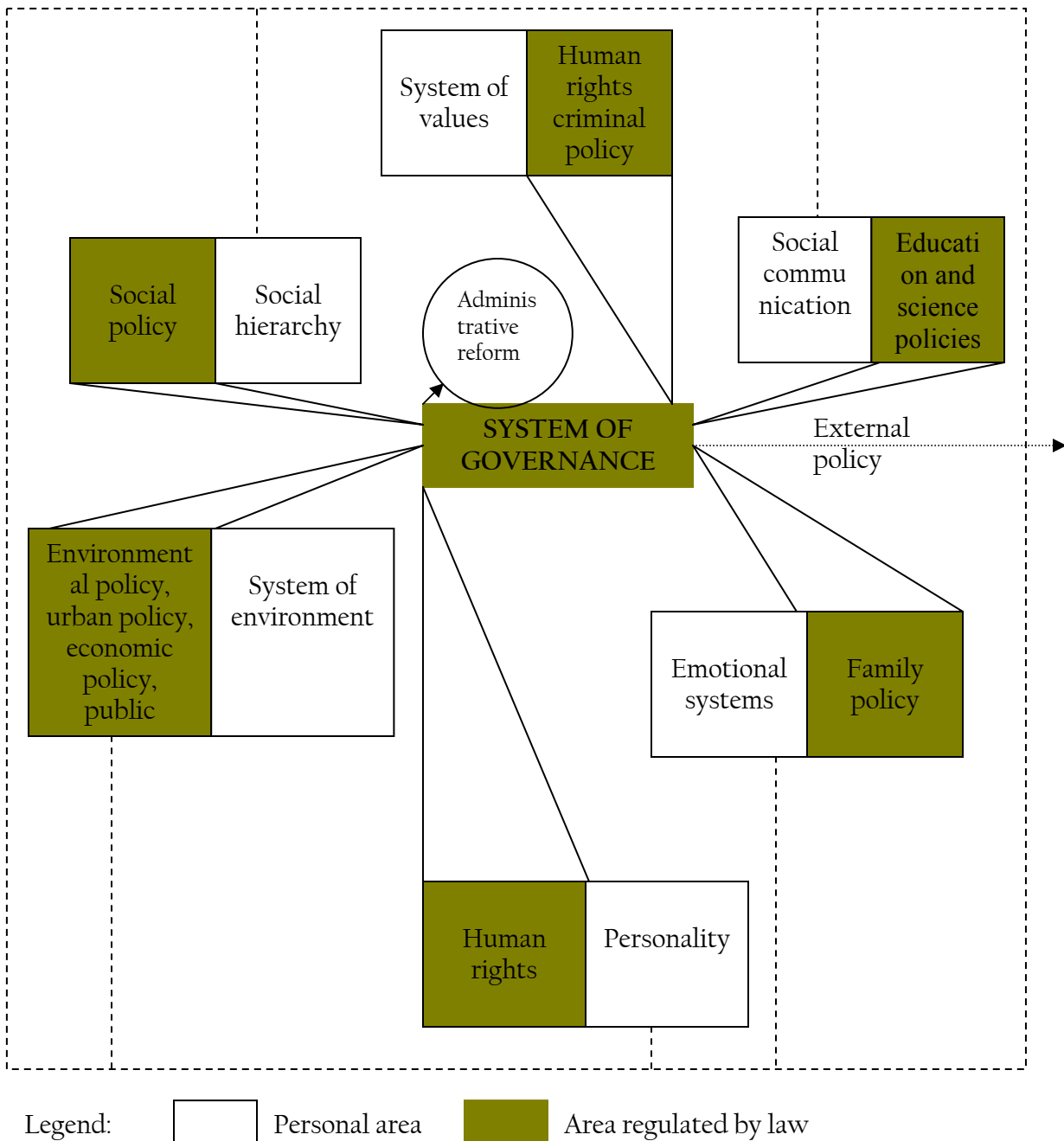


Fig. 4. Public policies' system (Decleris - 1989)

Such a model for the public policies' system corresponds to a model of an operational system of the *social complex* proposed by Decleris (1986).

Thus, a conclusion is reached with regarding that the future governments will not be able to effectively and efficiently lead without outlining the social field of action and projecting an integrated system of their public policies (fig. 4).

The Rio Summit (5-14 June 1992) where the Agenda 21 was voted – a monumental document for the governmental policies of the 21st century with a view to

accomplishing the general objective of “sustainable development”, is considered by Decleris “a triumph of the systems science, a certain proof that the human survival and the progress depend on the public policies’ systematisation”³⁸.

◆ The third field of public administration’s systems analysis refers to *procedural and methodological* aspects of public policy making. The needed “Administrative law” and “Administrative procedures” codes, which establish the legal framework for the citizens’ protection, are now completed with *political analysis, forecasting and assessment techniques, cost-benefit analysis* and a series of applied methods and techniques that aim at ensuring the *effectiveness and efficiency* in the administrative action.

In this way, scientific governance is reached: the public policies are not only the results of improvised compromises; they have the tendency to become the result an elaborated systemic projection.

◆ Systemic methods and techniques, based on the application of public law principles in the projection and implementation of public policies are rapidly developing.

“Public management” is a fashionable word that suggests a declared merger between public administration and management. It is a desirable alternative to the proclaimed uniqueness of the management in all the organisations’ types. Again, the emergent qualities of the public administration’s system do not have to go unnoticed in any political model. In many situations, the effectiveness in the administrative action was ensured by coercion, imposed through power. This thing is not anymore valid. The coercion remains the last argument of the state’s action; the authority regarding the public policy making depends more and more on the rationality and net results.

The systemic methods and techniques are important because they tend to:

- a) Ensure the citizens’ participation to the public policy making and their observance;
- b) Obtain the wanted results;
- c) Reduce the social cost of any policy.³⁹

◆ *The communication and information processing* represent the fourth field of the public administration where the systems science is useful.

Due to their complexity, solving the public problems needs the processing of some huge quantities of information, impossible without technical support.

The contribution of the systems science consists in the *software engineering*, where a variety of programs are projected in order to rigorously handle impressive volumes of information. These represent more than conquering the quantity; this means that the rationality and control in the public policy making are, also, efficiently served.

It is a field of knowledge that rapidly evolve: from *information management system* to *decision support systems* and further to *expert systems* and to new *neural networks* – all these powerful means of support are available to the decision makers in the public organisations.

A significant part of the routine of problems’ solving was taken over by machines, while other intelligent equipments can intensify the creativity of the public managers. Though presently the accent still falls on the information management, on the

³⁸ J.M. Decleris, Op. cit., p. 151.

³⁹ J.M. Decleris, “Systems Governance”, Sakkoulas, Athens, 1989, p. 89.

computerisation of the juridical texts and legal transactions, for example, the more ingenious programs regarding the analysis of the public policies' impact and the dynamic systems will certainly open new ways of thinking for the complex public problems.

◆ No matter how elaborated, the systems models in the public administration in the end refer to the analysis of the human beings, who, by definition and due to their inherent autonomy have a weak controllability in comparison to the human made machines.

In order to activate any organisation, the structure and the activities of such a system do not have to be only rationally projected, but also the human action must be drawn.

Apparently, this thing was obvious in the past, and the public administration was satisfied to design the civil servants' codes, which incorporated a rudimentary system of rewards and sanctions.

In the present society more complex methods of human cooperation are searched and the true science of *behaviour control systems* is necessary.

The cybernetics represents an integrant part of the systems science and is extremely opportune, a fruitful use of its principles. Nowadays, the human resource management is based on an ensemble of knowledge, borrowed from the social sciences, psychology, being completed by good sense recipes for ensuring motivation, productivity and leadership.

The duty of the systems science is to develop a coherent theory of the behaviour control systems, which has an applicable character.

The public administration is the biggest employer and millions of people spend a great part of their lives in its multiple organisations. The life in the public organisations and the public relations in general must be seriously studied before prescribing models of human behaviour in the organisation.

The fields with special concerns in the public administration refer not only to *maintaining* relations of *authority* in the society, but also to the intelligent *motivation* of the public agencies' performance.

Taking into account the conflict's omnipresence, inside and outside the public administration, the systemic models for *negotiation* and *conflict management* must have a priority for the system's planners and analysts.

Therefore, the study presented by Decleris shows that the systems science for the public administration is still in a stage of design. Decleris makes a delimitation of the fields towards which the systemic approach must be oriented, so that a *systemic model of public administration* can be projected, which will establish the basis for a better governance in any society.

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