

Strategic planning for digital transformation. Case study through a project of the Bucharest Sector 6 city hall

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Abstract

Objectives: Through this article we aimed to see the correlation between the steps recommended by scientific project management and the management of organizations in such a stage with the concrete development of a strategic project at the City Hall Sector 6 Bucharest. **Prior work:** The study allows, in addition to the scientific theoretical approach, an inside understanding of a preparatory project for the stage of artificial intelligence. **Spiru Haret University** was a participant in the SMART 6 Innovation Cluster. The respective cluster operated within the project with SMIS code 155741, co-financed from the European Social Fund through the Administrative Capacity Operational Program 2014-2020. **Approach:** The project that is the subject of the case study in this article mainly aimed to identify with a high degree of precision the state of affairs in relation to two major themes of progress: digital transformation and green energy. **Results:** We hope that this article will support applied economic research at the local level in understanding and designing the mechanism of transition to the age of artificial intelligence. **Implications:** The project included the use of valuable methods in the area of social innovation, which expands its applicability area. **Value:** The article puts into the scientific circuit the mechanism by which mandatory objectives can be achieved before the transition to the use of artificial intelligence within local communities. A case study is considered at one of the most dynamic local public authorities, Bucharest Sector 6 City Hall. The dynamism of Bucharest Sector 6 City Hall is both in the direction of general local development and in the use of technology for practical purposes. The study thus considers one of the most prepared local communities for the transition to the new phase, the use of artificial intelligence in solving current problems.

Keywords: mandatory preliminary phase of a project, public authorities, project management, implementation of artificial intelligence, development.

1. Introduction

The Bucharest District 6 City Hall carried out a project, Smart 6, financed by the Administrative Capacity Operational Program 2020-2027, which had as its objectives, among others, the approval of the Digital Transformation Strategy of District 6 for the period 2023-2030. Through this article, we want to analyze how the project of the Bucharest District 6 City Hall contributed to accelerating the local digital transformation. We will also test the compliance with some requirements of economic science and managerial practice in the development of the respective project.

In the article, we analyzed the correlation of the project development method, especially of the activity of the innovative cluster created, with requirements from advanced science and practice. The elements of economic and social theory, social and managerial innovation, aspects of project management, the correlation with the specific elements of a

“smart city” type project and with the requirements of change management were taken into account.

We mentioned how the Smart 6 project validated the role of ideas in the knowledge economy, the capitalization of experiences regarding the causes that generate project failure, the necessary correlation of actions at the local level with those at the national and international levels, but also the taking into account of the volatility specific to the knowledge economy. Regarding the social and managerial innovation achieved through the project, I noted the adoption of some principles of private management in public management, cooperation within the cluster through common working procedures, without departmental fragmentation, the achievement of a superior form of integration of a regional network, the capitalization through extrapolation at the regional level of microeconomic and macroeconomic approaches, the concrete application of the theory of development poles, the confidence shown in the advantages of cooperation including by finding innovative forms of public-private partnership. We observed the rigorous compliance with the rules of project management through partnerships for the realization of public goods and in the section on human resources management. We also highlighted the knowledge and implementation of specific elements of smart city projects, especially through the operation of an innovative organization, the cluster coordinated by the Bucharest District 6 City Hall. Regarding the change management contained in the “Smart 6” project, we referred to the ability to have a strategic vision of the content of the change, the autonomy of the teams within the innovative cluster established, the practical transition to a type of participatory democracy in the development of the digital transformation strategy, but also progress in attracting volunteers to support local public administration.

In principle, we tried to apply to a case study that we know well the elements of the deductive research method, namely the finding at the individual level of general laws widely accepted by science.

2. Review of the specialized literature

The dynamics of the digitalization of local public administration in Romania with an emphasis on e-government have already been the subject of scientific literature [1]. Bucharest’s problems have been discussed both in the political, social, and scientific environment [2], being mentioned from the perspective of pragmatic liberalism, in addition to other vital issues, the need for an action plan and the digitalization of public administration. There was also a scientific reaction to this document [3, 4]. The European Union has developed normative acts on artificial intelligence as an advanced stage of digitalization [5] or with the ethical aspects of artificial intelligence, robotics and related technologies [6]. The normative documents of the European Union have been the subject of rigorous analysis and development [7, 8, 9]. There are extensive debates on the digital future of the European Union. Based on the study of technological trends, the prospects for digitalization include the IoT stage [10, 11, 12, 13].

The digital transformation of urban communities is part of the category of smart city projects, a field for which there are both comprehensive scientific syntheses [14] and a permanently updated managerial theme [15]. At the same time, syntheses from the field

of project management [16, 17] or public management and local development are applicable. Requirements formulated in the previous period regarding business development in the information economy [18] can be taken into account. Scientific literature has marked a newer requirement for management, specific to the current stage of society's evolution: focusing efforts on collecting, analyzing and complexly capitalizing on knowledge in each organization [19]. In addition, social theory has developed a series of concepts, such as: human capital, social capital, institutional development [20].

The specific elements of smart infrastructure [21] are explored in depth, as well as the implications of advanced technologies in public administration in Romania [22]. Documentary syntheses of research in the field of smart cities have already appeared [23], combined with the need to integrate smart city elements into the history of Bucharest [24]. In contrast to the positive aspects mentioned in this article or in previous studies [25, 26], there are numerous negative observations on the pace of digitalization in Romania. The elements of digitalization have a well-established regional development framework [27]. There is also a complex dynamic of regional management science [28], crisis management in turbulent times [29, 30] as well as project management [31].

3. The essence and development of the project of the City Hall of Sector 6 of Bucharest

Sector 6 of Bucharest was the beneficiary of the project "*SMART 6 - Strategic Planning for Digital Transformation and Green Energy*", code SMIS 155741 financed by the Administrative Capacity Operational Program 2020-2027 [32]. The general objective of the project was to strengthen the administrative capacity of Sector 6 of Bucharest and simplify procedures by developing local strategies in the field of digital transformation and green energy.

The project envisaged the development of two strategies in the field of digital transformation and green energy, adapted to the conditions and local environment specific to Sector 6. These strategies were established to be developed through a consultative tool called "innovation cluster". It aimed to involve and consult stakeholders in the strategic planning process. The innovation cluster was designed to operate throughout the implementation of the two strategies, but also during the sustainability period of the respective project.

In the first stage of the project, the overall configuration of the project activities and the appointment of the consultant, the Romanian Association for Smart City, one of the strongest organizations with experience in this field, took place.

Stage 2 consisted of establishing the cluster's objectives. Within the cluster's activity, it was established that innovative solutions in the field of digital transformation and green energy, applicable at the level of Sector 6 of Bucharest Municipality, would be identified. These solutions would be integrated into the content of the strategic documents, in the action plan and in the list of priority projects, thus contributing to the innovative nature of the project.

Stage 3 was dedicated to the structural definition of the cluster. For the development of the two local strategies, an innovation cluster consisting of:

- representatives of the city hall management and specialized structures in the areas targeted by the two strategies (digitalization and green energy);
- representatives of the business environment involved in sectoral projects (from Sector 6 or representatives in the fields of digitalization and green energy);
- representatives of the university and research environment in the two fields;
- representatives of the non-governmental environment, namely associations/foundations with civic activity in the Municipality of Bucharest or with expertise in the targeted fields.

It was established that there would be a minimum of 20 members of the cluster. The 4th stage included establishing the procedure for nominating cluster members. It was established that internal members, namely representatives of the local public administration, would be designated by the Mayor of Sector 6, according to their competencies. It was also established that the selection of external members of the cluster would be made following a public announcement on the website of the City Hall of Sector 6 of the Municipality of Bucharest. The announcement mentioned the categories requested by the partners. In parallel, the City Hall of Sector 6 of Bucharest Municipality appointed the commission with responsibilities for approving the cluster members for each of the established categories.

External members, respectively representatives of other types of organizations, were subjected to a selection process, based on the following criteria: relevant experience, ability to represent the organization, representativeness of the organization and diversification of profiles represented in the cluster.

The requirement for relevant experience was proven by:

- Demonstration of previous training and experience in at least one of the targeted areas;
- Previous participation in projects / activities / initiatives / events that had as main themes Smart City, digitalization, green energy and similar others;
- Current or previous awarded projects / good practices in the targeted areas at national or international level;
- Current or previous projects in the targeted areas carried out on the territory of Sector 6 of Bucharest Municipality;
- Current or previous projects in the targeted areas carried out with the City Hall of Sector 6 of Bucharest Municipality.

The ability to represent the organization was tested by holding a leadership / representation position within the organization. The criterion regarding the individuality of the organization and the diversification of specific profiles in the cluster aimed to ensure the representativeness of all areas related to digital transformation and green energy within the cluster.

The participation files included: letter of intent, presentation of the organization, the candidate's CV in updated Europass format, other relevant documents related to the selection criteria, the document by which the person is designated as a representative of the organization to which he/she belongs.

The 5th stage represented the selection procedure for the cluster members. The final results of the selection process were announced within 5 working days of the deadline for submitting applications on the website of the City Hall of Sector 6. Among the selected members of the cluster was *Spiru Haret* University. The content of this study was based on access to all documents of the cluster's operation. The study can also be seen as having the particularity of having been developed by the team of an organization that operates within sector 6 of Bucharest Municipality and has continuously monitored the dynamics of local public administration parameters, including the digital transformation process.

Stage 6 consisted of carrying out the cluster activity, the most important part of the project. Most of the organizational innovation elements were concentrated in this stage. Several cluster meetings were held, each of them carefully prepared according to private management norms. At the end of each cluster meeting, a Minute was drawn up and communicated to all participants. The meetings were in a hybrid format, both physical and online. At least one representative of *Spiru Haret* University attended all meetings.

Stage 7 was represented by the final drafting and approval of the two strategies. These were approved by the Decision of the Local Council of Sector 6 (Local Council Decision - LCD) [33].

The 8th stage is the sustainability period, which is currently underway. This period is not mentioned in this article, and will be analyzed upon completion.

In short, it was mainly a social innovation project, respecting the requirements of the economic concept of innovation, as mentioned in the reference works of economic science [34]. Innovation, as a process, is a creative activity that allows the emergence of a new service. Here we had a set of public services made available to the community in the sector by the local administration responsible for the respective territory.

4. From economic theory to concrete managerial practice

Economic strategy is a correlated way of approaching a conflict situation in the economic field; it includes the development of medium and long-term events; at the same time it subsumes tactics, that is, it pursues short-term objectives. In the development of strategies, decision theory, economic development theory, operational research, game theory intervene, implying the existence of conflicts of interest [35]. The conflict aspect included in the definition must be seen as being correlated with the pressing requirements of the dynamics of society and of international developments. The digital transformation strategy of sector 6 planned for the period 2023-2030 included the development of specific activities aimed at achieving the assumed objective, the rapid increase in the degree of digitalization of activities in the community of sector 6 of the Municipality of Bucharest.

It is accepted or, more precisely, proven that the rate of economic growth resulting from the incentive of innovation in a free economy is sometimes particularly fast. At the same time, it must be taken into account that there may be factors, sometimes in the form of special interest groups, that affect the efficiency of an economy without affecting its growth rate [36]. In fact, Mircea Coșea also emphasized the paradox of Romania's economic growth based on low added value and low efficiency [37]. Through its components, the Digital Transformation Strategy of Sector 6 in Bucharest precisely aims at the growth of the elements of the new technological generation, with a high share of added value.

In the philosophy of Romania's transition to the knowledge society to whose parameters developed countries have already begun to integrate, we can admit the importance of actions and ideas as generators of reality, as social theory also supports [38]. This new reality "will be achieved through collective action of change guided by *strategic options*". *The ideas* that take the form of the *change strategy* represent, as it also appears in social theory, a *primary reality*, much more significant than the existing reality at a given time. Thus, the focus of the analysis of the social innovation project falls more on the change strategy and the change action itself, less on the existing reality representing the zero point from the management perspective. The ideas that emerged from the activities of the Smart 6 project and its innovative cluster represented this type of strategy of changing the level of digitalization in the area of Sector 6 of the Municipality of Bucharest.

Economic theory - both general and managerial - also leads us to *the causes that can generate the failure of projects*. For example, project management has identified through statistical methods *the causes that cause projects to fail*: lack of discipline in following the processes required by the project, the existence in operation or in flow of projects with competing activities to the one to be launched, lack of understanding of how to control changes, lack of a global approach to change management, lack of a common strategy to underpin decision-making processes [39]. In the Smart 6 Project, mainly in the development of the two strategies, none of the factors likely to generate failure were underestimated, and preventive measures were taken.

Another element provided by economic and social theory is that related to *the correlation of national and local actions with international trends*. In this regard, in Romania, the theory of synchronism has been written about. Today, the idea is evident that "Coupling the evolution of a country, region or community to the trends of the time represents the essence of modernization. History shows that this operation was always done as a project assumed by the creative segments within the territorial entities. There are no known cases of miracles in this regard" [40]. The Smart 6 project aimed to synchronize the level of digitalization in sector 6 of Bucharest Municipality with that of the European Union, rigorously respecting all the requirements of community norms.

Since the beginning of globalization, one of the great challenges that has emerged is the life cycle of products and services [41]. In the classic period of digitalization and in the transition to artificial intelligence, the life cycle problem does not disappear, but is posed

with increasing intensity. Solutions for modeling the costs of services specific to digitalization will have to be redesigned for the conditions of uncertain or variable life cycles. A series of other problems are linked to the life cycle that remain vital at least until the era of transition to artificial intelligence: consumer satisfaction, the specialized value chain, the need for permanent improvement by involving as many factors as possible, including own human resources through new solutions, but also consumers through feedback.

The transition to the era of artificial intelligence will generate changes in management science because new fields appear with an increasing weight, fields with particularities compared to traditional activities in industrial or tertiary society. A new, avant-garde field will be software development. It has already been noted in the specialized literature that within software development projects, data on consumption and costs are very difficult to estimate on an objective basis [42]. The same is true for other support activities attached to software development or related to the transition to artificial intelligence.

Given that both costs and the duration of the life cycle are random, we can establish that the era of transition to artificial intelligence is indeed one of hazard and probability. We estimate that in order to understand and interpret the movements of society as a whole, but also of each individual organization, state or private, the scientific theory of chaos will have to be adapted [43]. The concept of system sensitivity to initial operating conditions will thus be used, by system understanding both society as a whole and each individual organization.

In the conditions of multiple volatility generated by the acceleration of digitalization and the transition to the use of artificial intelligence, as mentioned above, other challenges arise for the management of organizations, whether public or private. One of these new problems is the protection of the organization's assets or, more precisely, as defined by the specialized doctrine, the protection of goods over time against numerous unforeseen circumstances [44]. In short, the problem arises of preserving accumulated wealth, regardless of the form in which it is held. Incorporating as much knowledge as possible and linking the exploitation of assets held in any form to high-performance IT applications are means of protecting the values accumulated by the organization. Incorporating knowledge related to the values held by the organization is recommended to be done regardless of whether they are mentioned in the balance sheet or not.

Among the restrictions required for a possible "Local Digitalization Strategy" are the avoidance of the formation of monopolies of any type, the establishment of artificial jobs in any form, and excessive public control over the functioning of the mechanisms of the new digitalized era. All projects within the new "Digitalization Strategy" must be in accordance with market laws under the conditions of the dominance of information as an economic good and as a commodity. All of these are respected in order to avoid the formation of financial bubbles generating economic crises. From the analysis of the content of the Digital Transformation Strategy of the City Hall of Sector 6, it can be seen that there is no risk of violating these restrictions.

Through the creative way of establishing the development strategy towards digitalization, the City Hall of Sector 6 has made progress both in avoiding the allocation of amounts in the wrong direction and in forming teams that will participate in the commissioning and exploitation of the concrete components of the digital transformation strategy. In practice, the concrete elements of the strategy developed and implemented, having their intrinsic value, are added to the value of the teams on whose operation the success in the future will depend. We are thus in the effective presence of some elements of the knowledge society, both from a technological point of view through IT&C applications, and from an organizational point of view. We believe that the teams that participated in the development of the digitalization strategy will be worth more than the best user manual of the applications that will function within the digitalization strategy.

5. Social innovation and managerial innovation

An essential element of innovation in public management can be represented by the import of private management principles into a public project. In the case of the presented case study, the City Hall of Sector 6 brought elements of private performance management into the practice of a public institution in Romania. One of these novelties brought by the City Hall of Sector 6 through the Smart 6 project was related to the valorization of the corporatist doctrine regarding organizational culture. It is known from the private environment that there is a close relationship between organizational culture and the valorization of company resources in the direction of professionalization, the responsibility of each employee, ensuring a system open to the external environment through intense exchanges and reception / feedback, respecting ethics, capitalizing on one's own creative and innovative potential, building a positive image [45]. All these advantages of the organizational culture present in high-performing private companies were brought in a form adapted to the specifics of the Sector 6 City Hall through the activities of the Smart 6 project.

The need for an organization to work as a unit in order to increase overall efficiency is well known in the corporate sector. A suggestive managerial slogan said: "*working procedures, not separate communities*" [46]. The unitary approach eliminates intermediary costs. Departmental loyalty can negatively influence other departments. It is possible to have improvements at the department level, but not to streamline activities for the general interest. Such conclusions were capitalized on at the community level. The approaches of the cluster organized by the Sector 6 City Hall of Bucharest had the effect of harmonizing the points of view expressed by a fairly large list of organizations, ultimately resulting in a unitary document to which there were no major objections.

Organizational innovation was also marked in the Smart 6 project by *the way it approached the topic*. From the perspective of the project management phases, the use of the innovative cluster to support the development of strategies considered as the objective of the projects takes into account the so-called *integrative systemic approach*, which necessarily includes related systems such as communication or culture [47]. The integrative systemic approach is also argued by coupling the digitalization strategy with the green energy strategy in the same project. Basically, the public administration follows the best ideas of the *smart city* concept through which a friendly living space must be

created from all points of view, mainly digitalization and green energy, according to the existing skills at this organizational level.

The organizational philosophy of the innovative cluster of the District 6 City Hall will be able to form the basis of an improved typology of clusters specific to the regional economy. The economic doctrine has so far defined clusters specific to the economy of localization, the economy of urbanization, those based on the model of growth poles, localized competitive advantages, new industrial areas [48]. Now, through the Smart 6 project, the transition to the stage of specialized innovative clusters can be recorded.

If we analyze more carefully the parameters and particularities of the effective functioning of the cluster organized by the Romanian Association for Smart City for the project of the City Hall of Sector 6 of Bucharest Municipality, we notice that it is *a superior form of organization and integration, the territorial or regional network*. The parameters required for such an integrative structure are largely respected by the cluster analyzed in our article. Different categories of organizations interested both as providers and as beneficiaries of the activities resulting from the application of the two local strategies participated. A public administration, the City Hall of Sector 6 of Bucharest Municipality, was present as a leader. Various groups interested in the issues of the Smart 6 project were also present at the cluster debates. Through the way the cluster operates, each participant was viewed as an integral part of this territorial network. The main responsibility of the established regional network was to solve problems of common interest, digitalization and green economy in the territory of sector 6. Also through the operation of the cluster, it was taken into account that the participants belonged to different social environments. Involvement was voluntary, and cooperation was based on equal rights, dialogue, consensus and compromise, with a high degree of self-organization during the meetings of the innovative cluster. We can thus conclude that the functionality of the innovative cluster of sector 6 was also a pilot project for a new typology of organizing social innovation, in accordance with the realities of community and national legislation, but also the local realities.

The problems in local administration can also be understood as *a combination between those of companies, respectively microeconomics, and those at the national level, respectively macroeconomics*. Thus, we can continue the approach by extrapolating some concepts of companies in the field of public administration. For companies in difficulty, the concept of *the circle of determinations* is used [49]. At the same time, the concept of *the vicious circle of underdevelopment* used at the level of the national economy to explain underdevelopment can be used as a referential. The symmetry of the problem at the regional level, sector 6 in this case, can be used with both the company and the national level. At the national level, the Government has numerous legislative instruments at its disposal that can modify the paradigm of the dynamics of development indicators. At the local level, as well as at the company level, the cyclicity of underdevelopment or unresolved problems must be fragmented by measures within a given legislative context, on which there is no possibility of intervention. In the case of Romania, the business sector and local administrations also face the problem of the lack of predictability of legislation, which requires a certain degree of caution in medium and long-term solutions.

Nevertheless, medium and long-term decisions have been made in a vital issue such as digitalization within sector 6 of Bucharest Municipality.

At the level of local administration, the circle of determinations includes the low level of satisfying citizens' needs, low level of trust in local administration policies, non-involvement of citizens in local policies, low success rate of local administration projects, even lower resources for satisfying citizens' needs due to the cost generated by the failure of adopted policies. Some local authorities manage to remove the circle of determinations by supplementing resources from the Government or the European Union. Neither is an easy solution, being only partially dependent on local administration. From a subjective perspective, the Government, as a general rule, does not contribute financially to local administrations except to obtain votes. The low level of trust of citizens limits the electoral effect of the allocated amounts. From an objective perspective, the experience of developed countries in Europe and beyond is known regarding the impossibility of supporting all urban communities to the same extent. There is the practice of concentrating resources towards a limited number of urban agglomerations that have natural or anthropogenic advantages, defined as urban poles [50]. Even public management in Romania has included in the legislation the principle of priority of regional and urban development poles [51, 52].

In order to access European Union funds, it is necessary to trust the local administration at least in the case of a significant group of specialists capable not only of writing an eligible and performing project, with real chances in competition with those of other regions, but also of implementing it, including maintaining it within the parameters established during the sustainability period. The City Hall of Sector 6 chose the solution to break the circle of determinations by involving citizens, individually or in their forms of association in private economic or non-profit organizations. The objective of resetting the trust of the necessary professional groups was achieved through the partnership with a valuable representative of civil society, namely the Romanian Association for Smart City.

An important element of *innovation* was brought by *the concrete application of the theory of development poles*. Through the effort made to organize the consultation for the two strategies, the project management, together with the consulting partner, also took a step on the path of transforming sector 6 into a true *urban pole* with a role in regional polarization of development. First of all, it aimed to achieve the strictly necessary support for a wide range of non-administrative services useful to citizens throughout the urban space of Bucharest Municipality, those related to digitalization. It respected the rules of polycentric development in which an urban area, sector 6 in this case, has the capacity to distribute welfare to adjacent areas. In addition, it ensured consultation on a wider scale, allowing the participation in the cluster of organizations in eligible fields based throughout the territory of Bucharest.

An important element of social innovation is the trust in the advantages of cooperation. The solution to develop the digitalization strategy in sector 6 through an innovative cluster is also based on the *trust in the strong desire for cooperation of citizens and factors with significant involvement* in the effective implementation of the strategy. In practice, we

consider that the solution of cooperation in the context of an increasingly rational public is increasingly accepted and applied. Social sciences have established that in the case of people who make decisions based on calculations and logical reasoning, in the long term cooperation brings a greater gain than the strategy of isolation and action on their own, thus being optimal from a rational point of view [53].

A component of organizational innovation is the adoption of the most appropriate cooperation techniques. The importance of cooperation and *teamwork* is well known in private organizations, especially in those focused on business. A famous formula of an equally famous businessman says: “working together is an integral part of survival and success at the same time” [54]. The Smart 6 project of the Bucharest District 6 City Hall adopted the technique of cooperation within an innovative cluster in a manner suitable to the objective of the project of developing the Local Digital Transformation Strategy.

An element of innovation can also be represented by cooperation in the public-private system in a new form. The problem of *cooperation* between central or local public administrations and private organizations in the provision of public goods is not new and appears with different intensities over time depending on different conjunctural factors. The essence of cooperation between the public-private system remains and represents the combination of resources to achieve common objectives. However, the forms of cooperation are constantly adapting. Even from an accounting-focused perspective, in Western European countries there has long been a trend of increasing effective demand for public services, which has always put the Government under great pressure. The pressure to find solutions appears even more in the case of public services for which there is the availability of private organizations to carry them out [55]. The City Hall of Sector 6 found a solution in which the responsibility for coordinating a public service remains with the public administration, but cooperates honestly with interested private organizations throughout the preparation-implementation cycle of a project.

Organizational innovation also includes improving institutional functioning by *capitalizing on resources specific to the knowledge society*. The way in which the innovative cluster of the City Hall of Sector 6 was organized and operated responded to a problem suggested by both doctrine and managerial practice: *the role of personalities in the life of organizations* and, especially, their performance in correlation with the adopted solutions. There is a connection between the individual personality of team members and organizational processes. Previous experience in similar projects, level of attachment, motivation for the organization’s performance, satisfaction with the organization’s prospects following the achievement of project objectives, ability to carry out what has been established, information flow, clear roles of organization members, trust in the hierarchical levels of the organization [56] are very important. If we follow the way the activities of the innovative cluster of sector 6 are carried out, we can see that the mentioned organizational innovation rules have been respected enough for the project to be a success.

6. Compliance with the general rules of project management

The City Hall of Sector 6 of Bucharest took into account and rigorously respected *the sequence of stages of managerial processes* as indicated by science and doctrine. The

Smart 6 project represented the first, mandatory stage of ascertaining the existing state and developing projections of future action. Given the specific cyclical nature of managerial processes mentioned by specialists [57], this stage conditions the next one, that of concrete action. At the same time, the foundations were laid for maximum efficiency of the stage of implementing the digital transformation strategy through the real involvement of factors that can act decisively for the success of the strategies - citizens.

Project management, especially those financed by European Union funds, has as a component the issue of partnerships. The inclusion by the City Hall in the innovative cluster of representatives of all relevant components of civil society, associations, foundations, universities, without neglecting the economic sector formed by different types of companies, can be considered as a confirmation of the way in which its position in the generation of public goods is viewed. It is true that additional consumer requirements can be both from the category of new public goods or from the category of new parameters of already existing public goods. Civil society is, mainly through non-profit organizations, part of the production of public goods. Non-profit organizations are, as social theory also supports, private producers of public goods [58]. Through the participation of non-profit organizations (private producers or providers of public goods) with a local administration, the City Hall of Sector 6 is in the situation of an original public-private partnership. This partnership, with a much more operationalized functionality, in which the reunification of the forces of the two basic areas of the economy, the private and the public, can even generate synergies.

An important component of project management is human resources management. In the specific case of the Smart 6 project management, an important element of novelty was the capacity of the innovative cluster to generate *creativity*. According to recent research, creativity depends on intrinsic motivational forces, but also on the characteristics of a supportive environment, including the firm will to be creative [59]. There is a possibility of inducing the desire to be creative in some individuals as the maximum measure of their self-realization. For this, it is necessary to collectively support personality characteristics such as non-conventionalism, self-confidence, leadership, influence, persuasion, work discipline, willingness to take risks, emotionality, flexibility, originality, perseverance. Moreover, as part of a true strategy, experts have mentioned that self-education of citizens can sometimes be more important than specific projects or physical changes [60].

It is well known that there is a typology of representative project categories in a certain period of time. We already have a well-established practice of *smart city project management*. Through the Smart 6 project, the City Hall of Sector 6 took into account the specific responsibility of public administration to promote the development of future-oriented markets, capable of anticipating changes or reacting quickly to challenges. The innovative organization, to which the cluster of the City Hall of Sector 6 belongs, must have two types of skills [61]:

- strategic skills represented by a long-term vision of evolution, with the desire and ability to collect, process and assimilate information;
- organizational skills representing the willingness to ensure internal and external cooperation.

7. Change management

What is actually pursued through the Smart 6 project and the related Digital Transformation Strategy actually represents a change at the local level in a period in which the path towards the knowledge society is increasingly evident. Thus, the general problems of change management already established by management science, but also those specific to the knowledge society, arise. It is a true axiom that the active citizen must be involved in knowledge-based organizations, given that they must have a strategic vision of the future. These organizations operate on the basis of complex social rules, and they are obliged to offer opportunities for creativity, flexibility and innovation [62]. Such opportunities are offered through the Digital Transformation Strategy of Sector 6 in Bucharest.

With increasing intensity, since the entry into the era of digitalization, the transition from activities in comfort zones to those in which challenges and even adventures are a necessity for survival has taken place. For this new situation in which all types of organizations - both private and public - find themselves, improved management rules are needed. True innovators recommend setting ambitious goals, and to achieve the goals, sufficiently large teams must be formed. If the teams have well-defined goals, deadlines, and allocated resources, then there are high chances of success. It is also recommended that team members be encouraged to test their own ideas on how to achieve the goal [63]. Team members who worked within the innovative cluster had the opportunity to analyze in sufficiently large groups the opportunities for the digital transformation of sector 6 in Bucharest.

It is true that change management can also be seen as a relaunch of values. Management can use the *participatory change* option, in which resistance to change is reduced to a minimum [64]. One way to increase flexibility to change in the field of public management is the transition from representative democracy to participatory democracy. The current stage of involvement of members of society in solving major problems and challenges has been intuited since the 20th century. Western political literature supported the idea that the future of society would depend on the will of the people. Since then, there has been a *large-scale desire to capitalize on the talent, critical spirit and creativity of each individual*. People have *longed for active and direct participation in the management of the society in which they lived* [65]. Such desires could be implemented through the operation of the innovative cluster of the Bucharest City Hall, Sector 6.

In the innovative cluster version organized by the City Hall of Sector 6, for the development of the digital transformation strategy, some *conclusions of the previous experience and research on the activity of volunteers within public administrations* can also be taken into account. They were recorded as requirements for an effective involvement of participants from civil society: the ease of completing the necessary formalities for all members, the speed of their integration, the ability to generate trust between all members [66]. The involvement of representatives of the participating organizations in the innovative cluster of the City Hall of Sector 6 in Bucharest contributed to the validation of this desideratum of volunteering.

For the analysis of the functioning mechanism of the innovative cluster of the City Hall of Sector 6, it is important to classify the decisions that must be made from the point of view of the knowledge held at the date of the working groups meeting. Our opinion is that decision-making within the cluster regarding the content of the digitalization strategy can be classified between the decision-making version under risk conditions and that of the non-determinism generating the decision tree. On the one hand, the direction of travel is known, towards increasing the degree of digitalization. According to what is presented above, there is no option to stop the digitalization process. On the other hand, there are several working hypotheses leading to the same result of rapid growth in digitalization. As management science says [67], if there are several options for winning or, as in our case, achieving objectives, we are in the system of risk-based decisions. In this situation, the options must be defined with the elements of uncertainty and the risks of loss attached. Several scenarios with probabilities of achievement can be proposed. In fact, the method itself is called probabilistic or stochastic decisions. Members of the innovative cluster of the 6th District City Hall proposed decisions based on subjective probabilities because there are no prospects for the influencing factors to contain repetitive aspects over time.

The option of indeterminate decisions based on the decision tree could also be considered. This option would have been dominant if the first option had been followed by alternative options with the ability to branch the working hypotheses. This decision-making option was not taken over. In the adopted Sector 6 Digital Transformation Strategy [908] the approach according to the risk-based decision-making model remained.

8. New research horizons

Our study may be a beginning of research with a partially applied character regarding digitalization in Romania in general, respectively digitalization in municipalities, regional centers, in particular. Even at the level of the City Hall of Sector 6 of Bucharest Municipality, this study will have to be continued with the analysis of the implementation of the digital transformation strategy after the sustainability period, based on specific quantitative and qualitative indicators. We also hope that the observations from our study will be complemented by those of some organizations that did not have the opportunity to participate in the activity of the innovative cluster of the City Hall of Sector 6.

9. Conclusions

The project of the City Hall of Sector 6 of Bucharest Municipality regarding the development of the Local Digital Transformation Strategy represented a contribution to the acceleration of digitalization both through the intrinsic content and through the procedures of the respective project. Through the way of conception and the actual development of the project, the requirements of general economic theory, macroeconomics, innovation, including organizational ones, were respected. Elements of general management science and practice, of the current doctrine of project management, but also of expertise in the projects management of *smart city*, aspects of change management were also taken into account. There is a high degree of applicability of the scientific literature in this field.

The Smart 6 project as a whole, but especially the activity of the innovative cluster, was based on a creative and dynamic behavior on all three levels: individual, social and organizational (company, Non-Governmental Organization - NGO or university). The innovation consisted of several organizational improvements, including by adapting a new element of science, cluster organization, to a complex development problem. In addition, a modern principle of cluster organization was applied, which gave it a new character and greater utility than was unanimously accepted previously. The result of the social innovation was practically a new service of the City Hall of Sector 6 of Bucharest Municipality to which superior economic and financial performances can be attached.

Considering the performance elements of the cluster that was the core of the development of the Digital Transformation Strategy of Sector 6 in Bucharest, we recommend transforming the respective cluster into an association aimed at participating in monitoring the achievement of the proposed objectives and, if necessary, updating them.

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