

Integrated Management System, Public Institutions, Small and Medium Enterprises in the Agile, Digital Environment

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Abstract

The purpose of this study is to highlight the opportunity to develop the economic operators, to optimize the activities of central and local public institutions using the innovative Agile method and the components of integrated management on specific criteria in public institutions and economic operators.

This approach starts from the following working question: how can the affected stakeholders influence the agenda of public institutions for the development of an efficient integrated management within local public organizations in order to facilitate the activities of private economic operators. This question is not an abstract one, it appears periodically in public debates inside Romanian private companies.

This research is the result of connecting the generic aspects of integrated management with the Agile Method and their applicability in private companies after highlighting the organization and operation of local public institutions; knowing that all these are the most important factors for the relationship between the private economic operator and the public institutions.

In turn, these criteria become important to emphasize the role of integrated management in the current context of our lives, of all, whether we are employers, public or private employees, or whether we depend on public institutions when we are entrepreneurs.

Keywords: *Small and medium enterprises (SMEs), Agile method, Agile methodology, integrated management systems, quality management, environment management, health and security management.*

JEL classification: *O3, O32, O38, O41, O50*

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1. General Framework

This work is an exploratory empirical research, an important component of doctoral thesis in the management field.

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The objective of this article is to underline the main models of management for nowadays small and medium enterprises, anchored in a globalized world. This approach is a descriptive-comparative analysis because we focused our research on the international and national legislative normative system, academic papers and articles, established studies, situations and reports published by Eurostat because they can offer us short, medium and long term solutions.

We underline that the economic environment in Romania is interconnected with all state members of the European Union, because of the common economic legislation. However, we are also interdependent with third countries for economic exchanges.

The Romanian institutional and legislative role has had an important interference in the life of economic operators in the last 30 years. This has had strongly permeated the business community since the implosion of communism in Central and Eastern Europe. In support of these assertions, we consider the relevant statistical data on the current situation of SMEs in Romania and the European Union; then, we punctually develop generic terms and adaptable tools in the major field of management and integrated management system to the realities of the local environment in SMEs, so as to follow the ways in which the company's profit can be increased, maintaining optimal performance criteria in the organization, all of which represent a type of (r) evolution: (a) of the academic theory as well as of the methodologies approached by the economic operators; (b) the legislative system of Romania and the European Union (EU).

We start with some benchmarks and statistics to have an overview for clarifications of actions and policies implemented in SMEs with the help of conceptual terms. Then, we explain the working definitions for the concepts related to small and medium enterprises, the components of the integrated system and the Agile method to put them in the area of integrated management adapted to the business environment of SMEs through the lens of the new innovative method, Agile, and how to adapt the activities of an SME from tradition to innovative environments of the 21st century. Conclusions and results become the final part of the reserved section at the end of the study.

2. The situation of SMEs reported at the political-administrative level of Romania in the period 2019 - 2021

In order to present some statistical data related to the entrepreneurial environment, the first definition given is that of an SME. This type of business is generically called the title itself, representing a private professional activity carried out in the economic environment of a state, generically named after the number of employees involved, turnover and annual balance.

According to the European Commission, in the Annual Report on European SMEs 2020/2021 Digitalisation of SMEs (EISMEA, 2021), we have three types of MEs, where income and number of employees are the most important criteria through which economic operators can be identified as SMEs:

micro - SMEs with a maximum of 10 employees, with a turnover and balance sheet annual accounting of max. 2 million euros; Small SMEs with 11-49 employees, turnover and annual balance sheet of max. 10 million euros; Medium-sized SMEs with 50-249 employees, a turnover of 50 million euros and an annual balance sheet of max. 43 million euros. Those with more than 250 employees are large companies.

However, whether they are small, medium or large economic operators, they must take into account the national laws of the states, local rules and cooperate with central and local public institutions. In Romania, according to the Law no. 500/2002 of public finances (2002, para. 30), the name of public institution is given to all public entities, starting with that of the Parliament and the Presidential Administration, then, of the ministries; followed by all other specialized bodies of the administration and central and local public authorities, autonomous agencies, deconcentrates, as well as the departments subordinated to them, regardless of how they are financed. The authorities and responsibilities of central and local public institutions are comprehensively defined in many laws in force, especially in Law 500 of 2002. During the pre-accession period and after Romania's entry into the EU, the Romanian state assumed the spirit and values of the Union, began to include treaties, directives, regulations, normative acts, etc. in the national legislative system. Among all this we find the satisfaction of the needs of the communities, which has gradually become a common goal of the Member States by highlighting a decentralized local level through sustainable development; and decentralization and sustainable development are key components of the European agenda for 2030 and also reflect the spirit of the European Union.

Once the standards required to obtain ISO (International Organization for Standardization) and OHSAS (Occupational Health and Safety Standard) certificates at the national level began to be implemented, Romanians began to introduce the integrated management system in their organization and operation of public institutions. These results started to appear after the authorities decided to implement new working tools to meet the requirements proposed by the citizens. Among these tools, the one-stop shop can become one of the successful pilot projects of the Romanian public system. This counter began to come to the attention of Romanians in order to facilitate the obtaining of official documents from the central department and from the local offices of the population records within the Ministry of Internal Affairs. According to data published by European Innovation Council and SMEs Executive Agency (EISMEA), starting with July 1, 2021 (EISMEA, 2021, p. 1), this one-stop shop is implemented for taxes and duties in all European Unions state members.

We notice that the few communities at the local level are gradually becoming more significant (but not in those from which people have emigrated, and the locality has remained in ruins). Thus, local public institutions need to reconsider taking local issues into account and be more involved in cooperation with all stakeholders. Communities succeed in building real mechanisms to meet

local common needs. The services offered by these mechanisms are influenced by people's lives and by the situations in which the operators' enterprises are located in their geographical and economic area, as following (Bogdan, 2016, pp. 12-13): 3181 basic territorial administrative units composed of 103 municipalities, 217 cities and 2,861 communes totals 13,750 Romanian places. Thus, on the territory of our state we have (Bogdan, 2016, p. 13): 320 cities / municipality residences, 2861 village residences, 473 component localities of cities / towns, 470 villages belonging to cities / towns and 9626 villages of some communes. At the end of 2019, in the approximately 14,000 smaller or larger Romanian settlements, over 300,800 small and medium enterprises (SMEs) were registered at national level (Cepăreanu, 2019). The country's capital, Bucharest, had a significant number, over a third of small and medium enterprises in the country, namely, 114,000 SMEs. After the outbreak of the Covid-19 pandemic, the number of entrepreneurs began to decline, although it is not published ad litteram, but there are clear signals felt by each of us, the entrepreneurs, that indicate that the economic situation in the private sector is not optimistic. According to data published in March 2021 by EISMEA (2020, p. 8), in the report for 2019, 22,526,457 SMEs were registered at Union level. For Romania we have the following situation: in small SMEs (10-19 employees) there were 365,615 people with employment contracts; in the middle ones with 20-49 there were 499,594, and in the ones with the staff between 50 and 249 there were 888,941; in large enterprises there were 1,443,732 employees. The public institutions that the economic operators approach directly and regularly are local government units. There are institutions that should work to support their communities because they have emerged only as a result of the fact that people inevitably live together in nowadays challenges by all digital means. Thanks to digitization, integrated system management could accelerate growth performance in activities that operate in the public system. By implementing software, algorithms and some applications are able to interconnect departments in different areas of the public system to protect the local and national interests of citizens.

3. From standard management of an SME to its efficiency by implementing the integrated management system

In this section we start from the premise that SMEs appeared in our country immediately after the change of the communist regime, most of them were known in the 90s as family associations. Many of them have disappeared and the rest of them have become SMEs. The evolution of the Romanian public and legislative system is directly responsible for cumbersome transformation that the Romanian labor market and business environment go through permanently.

There is no long-term predictability, which is explainable to the low number of SMEs in our country compared to the number of SMEs- Poland or Hungary, although Romania seems well anchored internationally in terms of business environment, is a signatory state of the most significant of the conventions, treaties, programs, international agendas accepted by most countries

in the world, from those issued from the United Nations (UN - is the only organization with a universal vocation) to bilateral conventions on various areas of economic activity.

For our topic we have in mind that the activities carried out by large national economic operators, transnational companies or SMEs are obliged by national laws, treaties and international norms to take into account the new directions imposed by the most relevant international organizations. Among the most publicized conventions, we regularly recognize in the debates the Kyoto and Paris Conventions on Climate Change or the 2030 Agenda for Sustainable Development, but without being punctually cited. These new types of international commitments are at the heart of the global policies promoted: man, peace, prosperity, collaboration / partnership and care for the planet (Britzelmaier et al 2020). All five directions are being tried to be introduced to the grassroots, especially in the sub-national environment, as well as by harmonizing actions and policies at all possible levels, international, regional, national, sub-national, local. The directions of these commitments can already be found in the conditions imposed by the international standards of operation of economic operators, by the famous ISO certificates issued by the International Organization for Standardization (ISO), with subsidiaries active in 165 countries out of 193 UN member states (*Agenda 2030*, pp. 5-6): an independent, non-governmental international organization that develops standards to ensure the quality, safety and efficiency of products, services and systems.

Starting from the three key words of the ISO definition (quality, safety, efficiency) we have our working definition for the management of this article. In turn, the definition is highlighted by the volatility of the Romanian business environment, where management has now become an important area of interest in all professional and academic activities. Thus, the management is a process of acting together with others to achieve in the most efficient way the objectives of the organization in a constantly changing environment, after it initially appeared in the business sphere, but now it has significantly expanded its scope and is used in all areas of human activity: education, culture, medicine, sports, etc. (Serduni, 2010, p. 7), representing the activity of leadership, administration, management (PMBOK guide, 2021, pp. 70-71), all this leads us to the idea that management is a holistic field, management itself is an integrative field because in its core we find at least five central elements: an activity or a continuous process, a leader, a small group of people, a science and an art (PMBOK, 2021, p. 71).

The Integrated Management System (SMI) is the central theme of this paper. This is an ensemble of three main components: (a) quality, (b) environment, (c) occupational safety and health (OSH). In other specialized works SMI consists of: the quality management system (SMC), the environmental management system (SMM) and the occupational health and safety management system (SMSSO).

3.1 Quality management system

Due to ISO 14001, the quality has become an efficient symbol and a distinct sub-branch in management through specific independent concepts, recognized and typified in distinct systems, some at national level, and others at international level. Thus, from customs and internal regulations, they began to become rules and laws. Quality is a set of inherent characteristics of a product, service or process that meets the stated or imposed requirements of the customer; has specific dimensions, involving criteria such as: performance, compliance, reliability, resilience, satisfaction, uniformity, efficiency, durability. (ISO, 14001).

Once quality is assured, we also need an operational quality monitoring and control factor. All this leads to the formation of a quality system responsible for the implementation of quality management (it is audited periodically). In fact, all these goals and tools that are meant to ultimately bring profit to a company must be SMART, which over time has become a formula addressed in most businesses. The five letters represent five acronyms coming from English, referring to Specific, Measurable, Attainable, Relevant, and Time-bound (PMBOK, guide, 2021, pp. 157-158).

3.2 Environmental management system

This subdomain is directly interconnected with the environment, it refers to the care for nature of economic operators, organizations of any kind and public institutions. The fear of continuing to cause problems and disasters or situations that run counter to the Earth's natural ecosystem has led to decisions and the signing of international treaties. They are beginning to be known as a problem of climate change. In this sense, a European recognized standard has appeared, Certification of the environmental management system, since 2015, ISO 14001 places greater emphasis on proactively improving environmental performance and integrating environmental management into the organization's strategic plans (ISO 14001, 2015).

3.3 Occupational health and safety management system

The third component of SMI is not a novelty in professional activities in our country. Ever since the communist regime, people have been training at work, there has been a real concern for human safety at work. This concern has grown now and is becoming an internationally recognized standard. The most recent ISO 45001 was published on March 12, 2018. It takes the requirements from an older standard, OHSAS 18001 from 2007, and adapts them to new international standards that foreshadow care for health and safety at the site. Employment of employees in the coming years, in compliance with one of the conditions enshrined in these standardization systems, that each of these certificates must be renewed every three years. ISO 45001 also combines the technical strength of existing OH&S standards, including OHSAS 18001, with the high-level structure of other international standards, such as ISO 9001 (Quality) and ISO 14001 (Environment),

to facilitate integration into management systems. Business at a higher level (OHSAS, 2018).

4. SMEs and the integrated management system. An agile approach

In 2021, the business environment in Romania operates and is organized so that it cannot circumvent the rules imposed by the above standards and can meet the requirements of several management systems at the same time. For this reason, the perspective of integrated management systems can offer great advantages to an SME in order to avoid the difficulties encountered in practice and to take into account the systems as a whole, in order to develop common aspects together.

During the research we noticed that SMEs, which have more than three years of activity, have proven to withstand periodic changes in order to be able to withstand the business market, proving resilience. All these represent an area with great development potential, and implicitly of the national economy.

Another aspect is the novelty of Covid-19 in the life of the economic environment. This one offers a competitive advantage of small companies with proportional number of employees. First of all, the small number of employees take on multiple responsibilities in order to have higher incomes, which gives them superior expertise to the employees of large economic operators or civil servants. Second, they can quickly resolve (un) anticipated situations, interact permanently, usually face to face, without writing interdepartmental documents or cluttered e-mails; and the employees cooperate with customers more than in transnational companies or public system institutions, the value of SMEs is proportional to people's professionalism.

All aspects related to the introduction of an integrated system in SMEs lead us directly to the Agile Manifesto, an innovative management method that has the following four basic principles (Deuff & Cosquer 2013, p.5): (a) the team: the team is much more important than the operational tools or procedures. (b) product: the product, even when unfinished, must always work. (c) collaboration: the employee must be involved in the project in order to be able to provide information to the team at all times, thus avoiding any difference between the request and the realization of the product. (d) accepting the change: the team must accept the changes requested. Initial planning needs to be flexible for these changes to be taken into account.

This method of management has become established in digital companies, but due to the flexibility in implementing these principles, the Agile method has come to the attention of many managers in areas that may or may not be related to the information space, such as the financial-banking environment, human resources of project and program management etc.

Therefore, the agile method is a method that can be adapted in SMEs due to the flexibility, tolerance to change, and the decision-making process in continuous effervescence. In detail, the 12 principles of the agile method cover the following aspects adapted from requirements related to the digital environment to

the real environment, without omitting the fact that the most important objective is the company's profit. Thus, the 12 principles stand for customer satisfaction, change, competitive advantage, information and cooperation, employees motivation, face-to-face dialogue, deliverables in short intervals, functionality of the product, sustainable development, excellency, simplicity, self-organization (Agile Manifesto).

This method is quite new, it was implemented in the 2000s. More than 15 years have passed and it still maintains the innovative elements of the 12 principles, with which SMEs identify the fastest. In this situation, we note that sometimes the Agile method cannot be implemented simultaneously with integrated management because the Agile method contradicts the most important benefit of integrated management systems, that economic operators have the opportunity to manage their management stages and processes from a single center. That is, although these management systems, whether ISO 14001 or ISO 9001 and OHSAS 18001, are implemented simultaneously in all existing processes in a company, only the development of different documentation and archive records makes the system difficult. This situation, on the other hand, can cause institutions to become cumbersome and lose their competitiveness, now that access to information is measured in seconds, and especially in this period when information management offers competitive advantages. In this case, the process and procedures related to the integrated management system could be simplified and the Agile method introduced.

5. Conclusions

From the above described we notice that SMI carefully implemented in a company produces resilience through changes produced periodically due to endogenous and exogenous causes. SMEs have a tolerance for change and adaptability which has the effect of increasing the professional level of employees and the level of performance in production in compliance with quality and environmental conditions, and occupational safety. The method of inter-departmental cooperation through SMI proves an increase in the quality of the finished product / service delivered, being simultaneously closely related to working conditions and employee health. Also, the overall performance of the effective and efficient SMI could build employee loyalty by improving the individual performance of all system components.

Management in central and local public institutions cannot be neglected because they have the power to influence the evolution of economic operators, sometimes, through the actions carried out by these institutions, it can be decided to increase or decrease SMEs.

We have noticed that the number of successful SMEs in a state is directly proportional to its development, they are directly attributable to successful market economies.

This study was restricted to integrated management in the business environment, especially in small and medium enterprises, influenced by the decisions taken by national law of Romania, European legislation and rules, and in UN fora.

If we were to build a single statement with which to identify this work, it could be the following: the bug word of management of small and medium enterprises is Agility in the same time this is a method of management that it has become compulsory in digital companies, due to its flexibility in implementing these principles, thanks to the advantages offered by the simplicity of implementation but without simplism.

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