

**”Dunărea de Jos” University of Galați**  
**Doctoral School of Socio-Human Sciences**  
**Doctoral Domain: Management**



# **DOCTORAL THESIS**

## **Abstract**

**Quality management in education in the  
context of globalization**

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**Serie E 2: No. 14, Management**

**Galați, 2022**

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**Keywords:** quality, total quality management, education, reform, models, efficiency, education system, innovation, sustainability

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## INTRODUCTION

The paper aims to highlight the transition to the new paradigm, where the school makes decisions based on quality management, extremely serious and anchored in contemporary realities grounded by several factors.

The purpose of the paper is to identify the stage of implementation of the total quality management system in Romanian educational institutions, as well as the need for quality in the Romanian education system translated into reference management indicators.

This paper consists of 5 main chapters that dealt with the following issues relevant to the chosen theme:

**Chapter I** refers to the analysis of the current stage regarding the research in the field of quality management in Romanian education, making an assessment of the quality in education, taking into account the component elements of a model, namely the system, the process, the didactic activity and the design of the didactic activity.

**Chapter II** entitled *Analysis of the management and quality assurance system in pre-university education in Romania. Particularities of education systems at global level* makes the presentation of educational systems, through SWOT analysis using quality criteria, taking into account bibliographic references, information collection and processing, as well as factual documentation in pre-university education institutions.

In **Chapter III**, entitled *Research on the analysis of the quality management system in Romanian educational institutions*, there is presented the analysis of the main characteristics of the application of quality and involvement of school directors in education, in order to observe the main elements that contribute to the performance of managers and which, implicitly, form the basis of the institution's performance and there is made a description of the working methodology and the interpretation of the results of the analyses carried out.

**Chapter IV**, entitled *Quantifying the need for quality in pre-university education in Romania through social sustainability models. Quality solutions and perspectives*, proposes itself to identify a model of social sustainability through quality management in education, a model that succeeds based on current achievements in management, social innovation, labour market orientation and sustainable components of the educational offers to sustainably improve the quality parameters in education management in the medium term.

The final chapter is Chapter V. *Conclusions, managerial implications and contributions of the research carried out in the development of quality management in education.*

The chapters also present an *Introduction*, in which I aimed to highlight the role of quality in education, the importance of this topic for all actors in education, the last part of which is dedicated to bibliographic references, lists and annexes that integrate into the structure of the paper as a solid informational foundation of the academic approach.

The paper cites 65 bibliographic sources, extends over 236 pages and comprises 94 tables and 100 figures, carried out by the author, by processing the information from the mentioned bibliographic sources, as well as by analysing and interpreting the results of the research.

## CHAPTER I

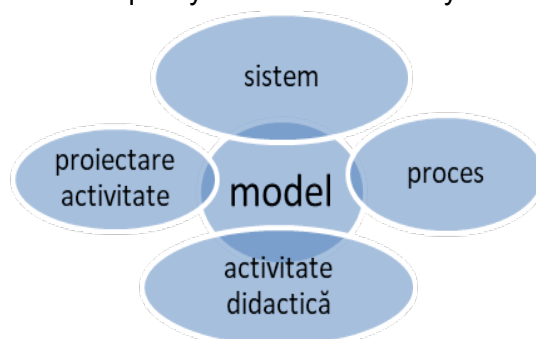
### The current state of quality management. Theories. Principles. Functions. Models

#### 1.1. Definition of quality terms, total quality management, quality standards

##### 1.1.1. Define the term “quality”. Quality of educational services

Globally, changes are happening rapidly, especially in the current crisis conditions (pandemic, war, economic recession), so citizens need to be informed, be ready to change jobs, and continuous training helps them overcome obstacles and be active citizens. These changes have led managers to identify the beneficiaries’ needs and unfulfilled requirements, but also to create other needs, in order to develop a long-term partnership.

Quality takes into account the needs and, desires of the beneficiaries of education: i. e. pupils, parents, employers and the community. The purpose of using quality in education is to identify, analyse and interpret a reality within an institution, to create activities that lead to the training of young people. The quality of education, defined as a model that starts from the need of the formable and ends with the feedback from the formable, presents all the elements of a model, namely the system, process, didactic activity and the design of the didactic activity. Elements of the model by which the quality of the education system is analysed:



**Figure 1.1. Components of quality**  
*Source: Author processing*

Quality in education represents the set of elements through which the proposed objectives are achieved, using strategies as diverse and complex as possible, taking into account personal interpretations, by carrying out the teaching activity that leads to performance, to the learning outcomes obtained through the teaching-learning activity.

To improve student performance, educational institutions need a competitive management plan based on a complex market strategy needed to improve educational services through a marketing mix. A strategy could include improved training materials, curricular alignment, increased use of technologies, digitalisation, school infrastructure, cutting red tape in most educational institutions, professional development, parental involvement in student education.

The quality of the teaching activity consists in satisfying the needs and exceeding the expectations of the students. The design of educational services is clearly a beneficial methodology for improving user’ experience in the education sector. Managers are responsible

for creating such a culture so as to achieve performance in the quality of educational services; performance may be above the similar services offered by other schools. In the field of education, teaching/learning, the essential element of achieving learning outcomes and performance, one that must be continuously improved through continuous self-assessment.

We propose a new definition of quality in education, quality seen as a **Systemic model based on an innovation-oriented, flexible policy, based on a quality assurance strategy that leads to performance through continuous exchange of good practices, through effective partnerships, using comparable indicators, to provide a guaranteed education to active citizens, under conditions of sustainability and sustainable development in the global force market.**

### 1.1.2. Define the term Total Quality Management (TQM)

The overall quality, more complexly defined in comparison to the quality of the product or service, takes into account the satisfaction of the customer's needs, given that his expectations must be exceeded.

Quality is the key to international success and quality management is a holistic, comprehensive and coherent process involving all employees, managers in an organization. Analysing the evolution of the term TQM one can note that the ultimate goal remains the satisfaction of customers, of the community, which can only be achieved through products and services, processes or methodologies, philosophies that keep up with the needs, desires, changes caused by employees or employers, economic or medical crises, the digitization of systems, offering services that lead to satisfaction above expectations or even delight the clients of institutions.

TQM seeks to create a distinct culture based on the efforts of all members of the organization to meet their needs, fears and desires at the lowest cost, effort and time.

### 1.1.3. Definition of ISO 9000 Standards

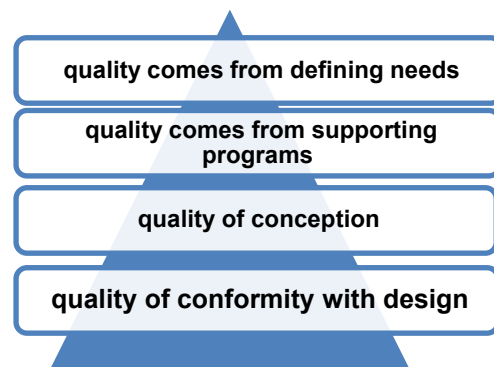
In order to ensure quality, there should be taken as a starting point the international standard SR EN ISO 9000-2006 – Quality Management Systems – Basic Principles and Vocabulary and then, the fundamental concepts should be clarified.

ISO defines TQM as an approach to managers, involving all employees, who aim for long-term customer satisfaction because the whole society must win.

ISO 9000 standards ask that the manager defines and documents in his or her management plan his or her quality policy, including the objectives and commitments he or she makes with all colleagues regarding quality. Based on these specifications, we can define quality as the totality of the identified characteristics.

Quality management is quality assurance from the system, processes, strategies, procedures, all designed, organized, implemented, evaluated and continuously reviewed to meet the needs, expectations, students but with the active involvement of employees and management of institutions.

The use of standards-based or model-based quality management system is the way institutions want to assure current or future students that educational services are of high quality. ISO 9000/2000, defines four aspects of product quality (Figure 1.6):



**Figura 1.2. The hypostases of quality**  
*Source: Author processing*

The International Standards Organization States that all standards provide that their products and services consistently meet the requirements of the customer and that quality is continuously improved through continuous analysis of changes in the global market (2015).

## **1.2. Principles and functions of total quality Management in Education**

### **1.2.1. TQM Principles**

The fundamental principles of TQM can be summarized as follows:

- ✚ full involvement of the management of the educational institution;
- ✚ identifying the needs of students/parents/employers;
- ✚ building an institutional culture through continuous training and employee involvement;
- ✚ continuous improvement of quality;
- ✚ making decisions based on facts and real data, following the analysis of results;
- ✚ assessment of quality costs, increase of standard cost/student through educational policy;
- ✚ providing quality educational services.

The functions of quality management derive from the general functions of management with specific adaptations to the problem in question: Forecasting, organization, training and control. The functions of quality management are: Planning, control, assurance and quality improvement.

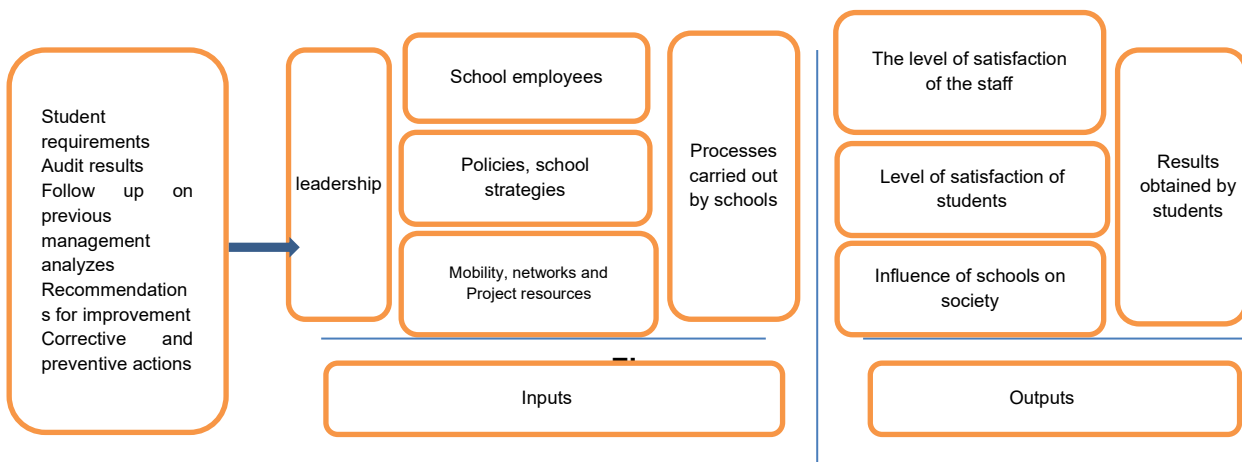
## **1.3. Models of quality management. Models applied in the education system**

The structural models of economic organizations, based on the requirements, criteria and descriptions of the system allow objective external evaluation in pre-university education. The quality approach requires all employees certain procedures, conditions that ultimately lead to the achievement of objectives, to the maximum performance. The performance evaluation models obtained by enterprises correspond to the world's leading awards for quality and organizational excellence.

The EFQM model, nine criteria model (Figure 1.8) [33] based on which the progress made by educational organizations through TQM is assessed, consists of the 2 main categories of the input group – consisting of leadership, personnel management, policy and strategy, resources and processes and refers to how (HOW?) The outputs group was also obtained - the results



obtained by pupils, teachers and society, does not explain the starting point of the management plans, how the school relates to direct and indirect beneficiaries.



### 1.3. The Excellence model of the quality achievement Award

*Source: Author processing*

Indicators related to human resources management should be appreciated with a measure, because if a manager does not excel in leadership, he cannot develop a team, nor can he have brilliant results in participating with others in the smooth running of the institution's activity.

Another interpretation that is based on a set of core values and concepts, which are the basis for integrating key performance and operational requirements into a results-oriented framework that creates a basis for action, feedback and continuous success. Core values and concepts represent beliefs and behaviours that are found in organizations with performance, after [34]:

1. Systems perspective, the quality assurance System is focused through three pillars, namely: SI - INTERNAL QUALITY assurance system MANDATORY used by each school, SE - external quality assurance system or accreditation carried out by ARACIP [53] and me,
2. Visionary leadership, leaders aim through policy and strategy planning to keep up with changes in society,
3. Student-oriented excellence, knowledge of the wishes and aspirations of young people implies special results obtained by them,
4. Employee evaluation and permanent self-assessment,
5. Organizational learning and agility,
6. Planning and achieving all indicators,
7. Managing innovation, adapting and using new means to facilitate the transition from school to the labour market,
8. Management of the performing institution,
9. The responsibility of the society, the involvement of economic agents in the school life,
10. Ethics and transparency, respecting the values of society necessary for integration into the global market,
11. Provision of value and results by all beneficiaries.

The eight quality principles on which ISO 9001 is based are fully harmonized on the European model of Excellence, lean, six Sigma and Business process Management (BPM), but

are deficient when it comes to critical quality concepts such as social responsibility and stakeholder needs, which are limited to the client.

#### **1.4. Quality management system**

The quality of education depends on the quality of teaching staff, the governance of educational institutions, the capacity and availability of students to learn and the quality assurance of educational services. Teachers are indispensable for achieving the proposed mission. Maintaining and improving educational standards is possible through teachers' implication. The lack of mismanagement of human resources within the education system reduces the performance of the system, no matter how much is invested in other resources.

Quality management in education and training is defined as the process by which students achieve maximum in their training, the achieved performance is measured using performance indicators and quality indicators, each department or institution generally using self-assessment for each activity or process, the external evaluation takes place every 3 years. Each institution develops its own standards, procedures and rules based on national regulations, in order to achieve the objectives set out.

The quality management system aims to ensure those interested that the processes carried out within the organization can meet certain requirements, includes: Structures, procedures, processes and resources, at the centre of all the elements being the student with the needs, expectations, desires that only the chosen educational institution can satisfy.

#### **1.5. Quality assurance in education**

##### **1.5.1. Quality assurance in education**

Another important part of quality education is quality assurance. Typically, quality assurance carried out in accordance with each country's government policy that provides educational opportunities for individuals according to national priorities and strategies [40]. The educational service will be of high quality if there are specific departments at each level of education provision that conceive and ensure the sustainability of educational quality.

The main objectives of quality assurance include: providing information on the functioning of the education and training system, the results achieved and the possible ways to improve them; taking responsibility for creating conditions conducive to achieving quality; maintaining and improving standards; demonstrate a high quality of initial and continuing vocational training programs for all learners; develop an institutional culture of quality and ensure real protection of the beneficiary.

Activities involving planning, implementation, evaluation of education and training, reporting and quality improvement – implemented to ensure that education and training (related to: Program content, curriculum, evaluation and validation of learning outcomes, etc.) meet the quality requirements expected by stakeholders. (Cedefop's glossary on quality in education and training).

Quality assurance is necessary because it prevents problems and, moreover, it is a global, managerial approach. This concept is the subject of quality management. Quality management determines from the beginning the management plans in this field, the objectives and responsibilities of the employees through means used to achieve the objectives proposed in the field of quality, in a framework that includes the structure of the organization, how to achieve and achieve the objectives envisaged for quality assurance in an educational institution.

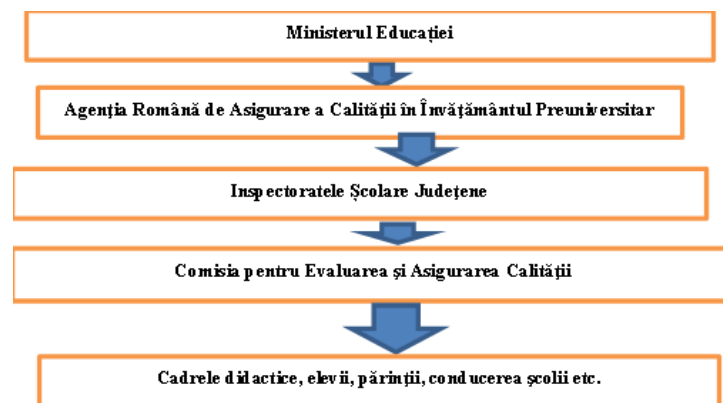
### 1.5.2. Factors that can influence quality in education

Quality in education means an approach to quality management at the level of the education system. Educational policies can play the role of strategic visions as long as they are prospectively planned. Quality management in education means quality management implemented and developed at the level of the education system, even though there is currently no clear distinction between what quality in education means and the quality of education. Secondly, it is very difficult for decision-makers to be convinced of the approach of a systemic management, with long-term projections, and the political factor forces to implement solutions very quickly.

On the other hand, the Romanian school today will finally succeed in passing into an organizational paradigm, to the detriment of the existing institutional one. This will involve a broad accountability of the school management team. The transition to the new paradigm will force the school to make decisions based on quality management, extremely serious and anchored in contemporary realities grounded by several extremely important factors: the environment/community in which it operates, the labour market in which it evolves, the requirements of customers and stakeholders interested in the evolution of the respective organization, etc.

### 1.6. Agencies responsible for quality assurance in pre-university education

Quality culture is the effect of advanced internal institutional quality assessment mechanisms and the continuous implementation of their results. At national level, quality assurance involves the following actors as shown in Figure 1.12. A quality education is not only one that ensures progress toward predetermined goals ("added value"), but also one that sets new goals and new ways of achieving them ("created value") as society changes.



**Figure 1.4. The role of institutions involved in quality assurance of education**

*Source: Author processing*

### Preliminary Conclusions

The entire quality assurance process is closely linked to the level of involvement of the staff and to the level of professional and pedagogical training of the staff. School principals should consider getting quality when making management plans, when setting strategies for achieving performance. A deep understanding of the need to improve the performance of the education system can be the motivating factor for stimulating the creation of a strategy for improving the quality of education.

## CHAPTER II

### **Analysis of the management and quality assurance system in pre-university education in Romania. Features of education systems globally**

#### **2.1. Education system – ROMANIA**

At the core of development in a society of knowledge and of an efficient global economy are to be found the quality education and continuous training. In order to integrate into the world economy, people not only need to acquire the knowledge and tools, traditional knowledge, they need to acquire new skills required by a knowledge society.

Technological capacity is essential, hence the importance of technological or dual education, the need to digitize and facilitate access for all to the developed infrastructure.

#### **2.2. Management and quality assurance system in the educational process**

Quality – which means the outstanding teaching methods of teachers, the special attention for the permanent training of teachers, the digitization of educational systems, the practical applications necessary to prepare the transition from school to work, the well-being of all beneficiaries in education, equal opportunities and the encouragement of access to education, reducing school dropout to zero, involving all decision-makers in the education of young people – is a basic condition in providing an innovative education.

In order to give a boost to the development and implementation of quality in education all schools must have a starting point the need of the student, each ISJ identifies the needs at regional level of all beneficiaries, and the M.E. to reform the education system and determine to be in competition with the European ones (e.g., Finland) Or Asian (e.g., Japan) identifies internal development needs, establishes diagnoses and decides strategies with this goal of quality, efficiency and equity.

In the school education arena, quality assurance (QA) is a way of ensuring that a school education system is fit for purpose by achieving and maintaining quality standards in education, improving them, and the processes and practices that exist to support these goals. The QA shall consider:

- (1) maintaining standards and (2) improving them.

Countries focus most of their quality assurance efforts on: Learning outcomes, teachers (recruitment, training, teaching methods, etc.), the context of school education (school climate, school governance, relations with parents, etc.).

Assessment of the quality of education consists of going through several stages to identify whether the school in question through all the activities, plans and programs designed meets the proposed indicators. The evaluation can be carried out at the school level in the preliminary phase or by external teachers in the case of external evaluation.

### **2.2.1. Involvement of QA stakeholders in EU school systems**

Parents, students, teachers, school principals, me officials, Employers [53], continuously analyse QA in the school sector, because depending on the feedback received and the results of research carried out at different levels of the school system (central, regional/local and school levels), operational plans are made at school level. Regional plans and educational policies on quality in education.

At system level, governments have a mandate to ensure certain aspects of school quality. In addition, associations of school and local actors (e.g., parents, teachers, school directors, local authorities) are, also, consulted in the Advisory Councils, by public actors and have an influence on policy development. In some countries, at all levels, educational institutions are involved in the design and implementation of quality assurance activities and procedures (e.g., through the development of performance objectives and objectives, the implementation of external evaluations, staff evaluation, etc.).

### **2.2.2. Institutional evaluation**

Starting from the national educational policies, the concept Directors managerial plans for the following year. School inspectorates ensure the quality of education and compliance with national standards through school inspection.

Every school has the starting point of analysing the environment, identifying the categories of public it serves, their decision-making and buying behaviour, the factors that influence this behaviour and how these influences are realized. The school then needs to develop a strategy to address these categories of audience based on the resources available and taking into account the way in which the influence factors in micro and macromedium manifest themselves. It starts with values, principles, sets a mission, strategic and operational objectives, policies and action programs.

The specific objectives of internal evaluation involve competition between elitist schools, where educational programs, curricular and extracurricular activities attract a high number of students and parents strive for their children to have access to schools where the quality of teaching and learning processes, highly trained teachers have outstanding results confirmed over time and the education received presents a European dimension also in terms of relations with the community.

### **2.2.3. External evaluation**

The external evaluation of the pre-university educational institutions is carried out by the county school inspectorates and by [53]. Through external evaluation, the teacher is monitored if he observes the procedures in the didactic activity, but the competences of the pupils are not analysed, the connection between the educational results at the school level, reflected in the real competences of the pupils, and the de facto organization of the school. We need to analyse the results of the standardized national tests – depending on which, we can take the necessary measures to increase the degree of education of the pupils, but we take into account the similar social profile, thus controlling the influence of the socio-economic profile of the student on the school results. In order to be able to measure the evolution of students' real skills over time at different successive times, they must be measured by independent experts.

## 2.2.4. Conclusions on quality assurance at European level

At national level, employers' active participation in strategic priorities is required, increased collaboration with government actors in the implementation and monitoring of key strategic initiatives.

At institutional level, sectoral committees would facilitate dialog with authorities, as well as between schools and firms, through their participation in the boards of directors and their involvement in the development of the curriculum. School managers must consider the permanent training of school employees. This can be achieved through programs and courses. For future students, a wider range of activities should be offered that stimulate more interest and confidence, including media campaigns, education and job fairs, visits to training companies and information on graduate employment prospects.

For current students, M.E. is obliged to increase the number of psychologists and career counsellors, preferably each educational institution to have a school counsellor.

## 2.3. SWOT analysis of the pre-university education system in Romania

To highlight the strengths and weaknesses of the educational system, the tool used is SWOT analysis using quality criteria taking into account bibliographic references, information collection and processing, as well as factual documentation in pre-university education institutions.

*Table 2.1. SWOT analysis of the pre-university education system in Romania*

EDUCATION SYSTEM EXTERNAL ENVIRONMENT	
STRENGTHS (S)	WEAKNESSES (W)
<b>INSTITUTIONAL MANAGEMENT</b>	
<ul style="list-style-type: none"> <li>- Legislation – respecting the requirements imposed by the SARS-CoV-2 pandemic; emphasis on transparency in decisions, solving complaints and petitions;</li> <li>- qualified teachers who fill their positions through national title contest;</li> <li>- career development through didactic degrees, specialized courses, postgraduate courses, etc.</li> <li>- Efficient monitoring through national standards / performance indicators;</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient concern of school directors in valuing and materializing the activities of control and evaluation of teachers, by targeting those with inadequate training toward programs and continuous training actions through CCD and other training providers;</li> <li>- Poor assessment of the performance of educational establishments;</li> <li>- Reduced financial resources for improving the technical-material base in schools, facilities;</li> <li>- lack of skills for using digital technologies.</li> <li>- The existence of conflicts and tense States in some school units, to the detriment of organizational culture.</li> <li>- Schools unprepared for online learning, insufficient endowments, the human resource with poor digital training; lack of tools for online learning and lack of skills for using digital technologies.</li> </ul>
<b>School inspection</b>	
<ul style="list-style-type: none"> <li>- Information is collected through standardized procedures,</li> <li>- The results of the school evaluation are compared to t and t + 1, which allows monitoring of quality progress.</li> <li>- The majority of the actions carried out by the ISJ compartments were carried out with the competent support and consultation of the teachers from the collaboration structures of the school inspectorate (Methodists, Advisory Councils);</li> </ul>	<ul style="list-style-type: none"> <li>- lack of improvement strategies,</li> <li>- external evaluation without complementary self-assessment of schools,</li> <li>- The comparison of the evaluation results between schools is limited with the available indicators, the poor reaction of the school units in the circulation of information in the territory,</li> <li>- Inconsistencies between the county strategy and the educational policy of some schools;</li> <li>- The absence of comparative studies at the level of the school inspection, for all school units;</li> <li>- Inspectors' busy agenda causes rhythm breaks and reduced assessment visits in school;</li> </ul>

	- Slowing down the building of a communication relationship between ISJ and teachers.	
<b>HUMAN RESOURCES MANAGEMENT</b>		
- high level of teachers who have obtained the title - Carrying out the mobility stages according to the calendar in compliance with the framework methodology on the mobility of the teaching staff in the pre-university education;	- the retirement of a large number of titular teachers during the school year, the employment with staff without studies corresponding to the job in certain disciplines / specializations. low interest of teachers for knowledge of normative acts related to the mobility of teaching staff;	
<b>QUALITY ASSURANCE</b>		
- The existence of the national quality assurance framework - networks in the field of quality assurance - the existence of consultation and involvement of the school of stakeholders in the quality assurance cycle, - There are indicators to measure the achievement of quality standards - The results of different quality assurance activities are used in other activities - national evaluators - application of quality standards in the design of institutional development and in its evaluation, in most educational establishments in the county; - development of uniform evaluation criteria and tools, structuring of information in standard forms, - carrying out return inspections in situations requiring remediation; - Improving the education infrastructure in relation to the requirements of the SO	- They don't take into account the school's characteristics - Lack of data to measure the real progress of students and teachers - there is no national basis for assessment and certification - curricula not adapted to the requirements of the different ages and interests of the students - Inability to make use of learning outcomes - The quality of the work requires time and human resources, as well as a certain set of skills. - Lack of alignment between quality assurance policies, procedures and practices in objectives should work, for example, if student assessment processes are not updated following curriculum reform. - no methods for obtaining entrepreneurship knowledge except technological education - the quality assurance cycle appears to suffer from the institutional separation between evaluation (carried out by a public agency) and quality development (carried out by the school and the school supervision by target agreements). not knowing modern evaluation tools	
<b>Opportunities</b>	<b>SO – aggressive strategies (expansion-investments)</b>	<b>Wo – reorientation strategies (balancing deficits/investments)</b>
Implementation of strategies on decentralization of education for quality assurance in the education system. - Unprecedented opening of the online environment to the school and the school to this opportunity, providing free educational platforms, possibilities to access funds dedicated to the purchase of useful software and digital equipment; - The impact of the results of the implementation of the national Strategy on digitalization, which facilitated the access of all teachers to education and training systems; - Collaboration with related institutions / Community actors through partnerships - Elaboration of PRAI at regional and PLAI level at county level, with the involvement of ISJ;	- developing criteria for school quality provides the framework for external evaluations. The quality criteria cover five quality areas: Performance, teaching and learning, school culture, professional development, management and leadership and cooperation. - Popularize the institution's experience on the professional development of future specialists and the development of teaching skills. - Systematic updating of the curriculum content: "Foreign communication of teachers in a multicultural environment", - Involvement of leading specialists and employers in the educational process.	- Providing support and advice to all school unit directors; providing information to directors and teaching staff - Measuring efficiency and stimulating the members of the organization to contribute to the process of achieving strategies and implementation plans through image, support, price, quality, Design - By reforming the system of training and financial investments in programs in a coherent and continuous way, the training of young entrepreneurs can start from the period of studies. - Use of technologies to activate and enhance student activity - Application of teaching methods focused on communication skills training, leadership skills, teamwork ability, flexibility, mobility, stress resistance, etc.
<b>THREATS (T)</b>	<b>ST – diversification strategies (prevention – insurance, risk minimization)</b>	<b>WT – Strategic targets – defensive strategies (taking action – high-risk tasks)</b>
- Legislative changes - Significant difficulties in accessing European funds - low funds for school development and lack of measures to discourage abandonment,	- strategies for maintaining and developing relationships through loyalty programs - strategies to protect against offensive strategies of competitors' schools	- Active work in the employment of graduates; - Reducing the theoretical part of the disciplines and strengthening toward practice; - Creating joint projects and, as a result, developing not only hard skills

<ul style="list-style-type: none"> <li>- the increase in the number of refugees, Ukrainians, Arabs, etc.</li> <li>-- reduction in the number of pupils due to a decrease in birth rates; increased risk of school dropout of pupils from disadvantaged families;</li> <li>- major discrepancies between schools from different backgrounds;</li> <li>- selection of centralized teachers, without the intervention of the school;</li> <li>- Decrease in hours in some disciplines; mobility of teachers in some disciplines;</li> </ul>	<ul style="list-style-type: none"> <li>-developing effective communication strategies with students, parents, etc.</li> <li>- careful study of the specific needs and requirements of the beneficiaries,</li> <li>- studying the strengths and limits of the school's own offer, in relation to the offers of competing suppliers,</li> <li>- a careful exploration of the profile and situation of each beneficiary,</li> <li>- sustained promotion to increase the image of the school in order to attract students in large numbers,</li> <li>- partnerships with economic agents</li> </ul>	<ul style="list-style-type: none"> <li>(professional skills), but also soft skills that will give the chance to retrain the graduate.</li> <li>- Launch an exchange program with other countries, by improving language knowledge among students and teachers.</li> <li>- Developing a mechanism to recognize the learning outcomes achieved in non-formal education</li> <li>-Implementation of the dual form of education</li> <li>Control the implementation of independent work;</li> </ul>
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*Source: Author processing*

## 2.4. Preliminary conclusions

Educational institutions must start from the point of identifying the needs of labour beneficiaries, but also take into account the needs of their training for the purpose of employment of the formable by creating a good reputation, developing educational programs, meeting the needs of customers, covering the needs of the community. The melange between quality management and the marketing mix is a combination of tools that educational institutions can use to meet the customers' needs and therefore influence the demand for the services they offer.

Having a curriculum taught to students according to their capacity of understanding and application, with methods adapted to the typologies of the students, the performances obtained by the students are specific to each of them's skills and natural attitudes, the learning outcomes being determined by the student's evolution and progress time passing. Thus, teachers work alongside students, the student's success or failure is equally shared by all the actors involved in the educational act. The student's needs are identified, the teacher's style adapts to the student's needs, in order to meet the standards imposed by the system, whereas the school, the family and the community join the students to help them integrate, so that each student would work according to an individualized program and centred on his needs.

In order to have an open school, adapted to the new changes where digitalization has an important place, after the pandemic that demonstrated the role of technology in the training of students and teachers, where every child must be accepted and helped to overcome their condition, where they fight school failure, with school dropout must not be a battle lost from the very start due to material shortages, due to the lack of financial aid, the integration of students into the labour market and inclusion must prevail, and not the contests, the Olympics, the final exams and the rigged percentages and the performance of each is added to the performance of the school, the performance of the child is the performance of the teacher, the failure of the student is the failure of the teacher, the criteria related to access to education of all are more important for society than the progress of the school.



## CHAPTER III

### Research on the analysis of the quality management system in pre-university education institutions in Romania

#### 3.1. Purpose, objectives and criteria for building the structured questionnaire

##### **Methodology framework**

The research is based on the analysis of the main features of the quality management system in education, in order to observe the main elements that contribute to the performance of managers and which, implicitly, are at the basis of the performance of the institution.

The present research was conducted through the collection, processing and analysis of data in order to identify the characteristics underlying the performance of management in schools and the impact on the organization.

**The general objective** of the scientific approach is to identify the stage of implementation of the total quality management system in the educational institutions in Romania.

On the basis of the objectives, the following assumptions were formulated.

##### **O1 - The connection of the education system to the requirements of the labour market and the determination of the dimension of the managerial strategy for quality assurance in the pre-university education in Romania**

H1. There is a direct relationship between strategy and material resources in school units.

H2. There is a direct relationship between strategy and human resources in school units.

H3. There is a direct relationship between strategy and the quality of educational services in school units.

H4. There is a direct relationship between the communication/collaboration/mediation of conflicts in the school institution and the management strategy aimed at ensuring the quality of educational services.

H5. There is a direct relationship between the promotion of sustainable and quality employment in the school institution and the management strategy aimed at ensuring the quality of educational services.

H6. There is a direct relationship between the promotion of social inclusion in the school institution and the management strategy aimed at ensuring the quality of educational services.

##### **O2 - structuring a managerial strategy model to ensure quality in pre-university education in Romania**

H1. Situational leadership positively influences the quality of educational services in pre-university education.

H2. Decisional autonomy/decentralization at the level of the local and regional Community positively influences the quality of educational services.

H3. There are significant differences between the level of perceptions and the level of expectations of teachers regarding the quality of service provided by school managers to ensure quality in the pre-university education system.

H4. The assessment of the trends registered by the education system at national/European level (worldwide) positively influences the quality of educational services in pre-university education.

H5. The assessment of the teacher from the organization, parents, pupils and employers positively influences the quality of educational services in pre-university education.

H6. Consultation of the employers and the community on the relevance of study programs positively influences the quality of educational services in pre-university education.

### **O3 - Identifying the role of total quality management/particularities regarding total quality management within pre-university education institutions**

H1. The implementation of a quality assurance system influences the quality of strategic planning in pre-university education units.

H2. The promotion, by managers, of the values of the institution and the interest in the needs of the employees contribute to the achievement of the objectives of the school institution.

H3. In educational institutions, basic, high-quality education is guaranteed to all in order to have the capacity to exercise their basic rights as adult citizens.

H4. The promotion of a quality culture is positively influenced by the attitude of the school team.

H5. The existence of an appropriate organizational infrastructure contributes to increasing the responsibility of employees toward the importance of quality in schools.

H6. Identifying the factors necessary for the implementation of TQM in education influences the quality of strategic planning within schools in pre-university education.

#### ***Scientific research methodology***

The research was conducted using both qualitative and quantitative methods, over several stages.

#### ***Presentation of the target group***

The study of quality management activity in pre-university education in Romania had as **observation unit** the County School Inspectorate – 41 counties and Bucharest in Romania.

#### ***Develop the questionnaire used in the research***

Following the comparison of the known quantitative and qualitative research methods, we considered that the best option that would fit the purpose of the research is the questionnaire, launched in the framework of a selective survey (Annex 1).

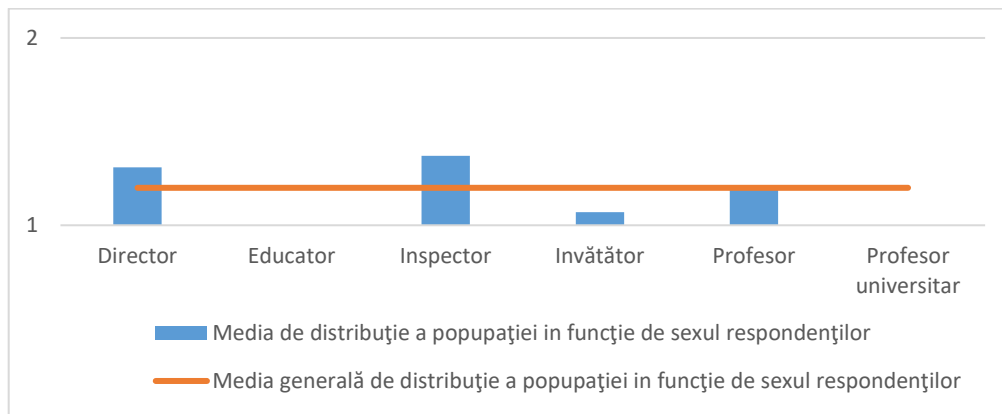
Finally, the questionnaire was applied to 1063 teachers, having different positions in the educational system, between October 2021 and January 2022, the analysis being finally carried out on 713 valid questionnaires.

When preparing the questionnaire, the 7 major research topics related to the field studied were considered, these being detailed in 103 questions, at the end of the questionnaire there are 8 questions that concern the identification data of the respondents.

### **3.2. Analysis of structural items**

Regarding the indicator of Seniority accumulated in the education system, there is found the following stratified distribution among the respondents: 12,48% respondents have registered less than 10 years of experience in the system, which means that the contribution of the formative assertion to the population of the sample in vocational training enables the dynamics of the system on the average time horizon with a maximum of 15% of the mass of teachers.

Even though women practice in an overwhelming percentage in the education system, there are men who dominate in leadership positions, as seen in Figure 3.5.



**Figure 3.1. Average distribution by sex and function**  
 Source: Author processing

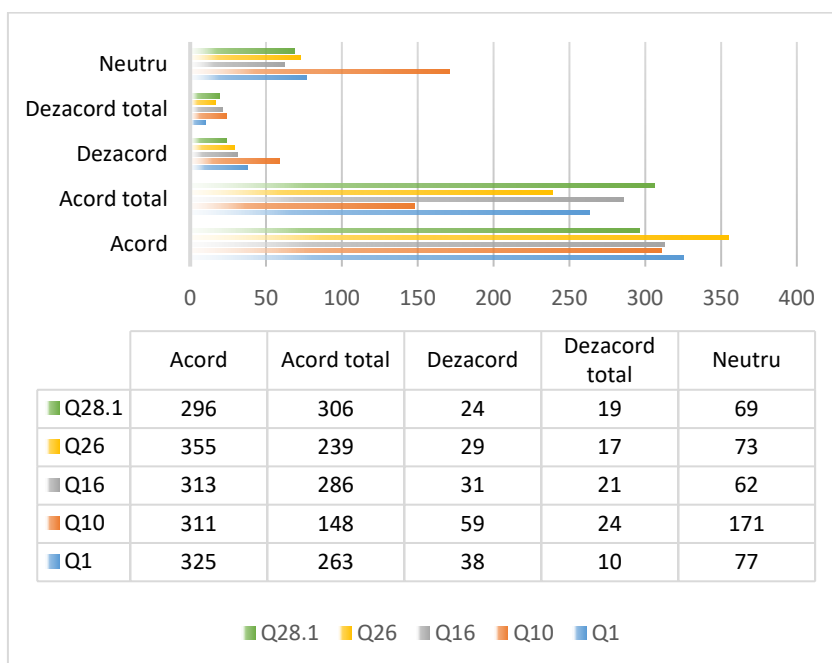
### 3.3. Analysis of analytical items

As regards the indicator [Q1] (*PlanOffer*) the following stratification of the options is found among the respondents:

The preponderance of responses indicating the existence of an agreement is obvious, with 325 and 45.58% of the respondents, respectively saying that this *PlanOffer* management indicator was implemented and 263, respectively 36.89% of respondents stated in total agreement on the implementation of the management indicator, there are no internal vulnerabilities, the vision on strategic orientation coincides with the vision of the local community.

As regards the indicator [Q16] (*CorrectEvaluation*), the following stratification of the options is noted among the respondents: 313 and 43.9% of respondents, respectively, agreed on the implementation of the *CorrectEvaluation* management indicator. A number of 286 and 40.11% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 31 and 4.35% of respondents, respectively, declared themselves in disagreement on this issue; a number of 21 and 2.95% of respondents, declared themselves in total disagreement on this issue. In contrast, 62 and 8.7% of respondents declared themselves neutral regarding the implementation of the *CorrectEvaluation* management indicator.

Regarding the indicator [Q28.1] (*ManagerialPolicyValues*), the following stratification of options is found among the respondents: 84, 43% respondents, consider that IM is reached; a number of 43 respondents consider that IM is not reached. Instead, 68 and 9.54% of respondents said they were neutral about the implementation of the IM.



**Figure 3.2. Correlations between IM Q1, Q10, Q16, 26, 28.1 – Cluster G1**  
 Source: Author processing

Regarding the indicator [Q40] (Managers Selection), the following stratification of the options is found among the respondents: A number of 257, respectively 36.04% respondents agreed on the implementation of the management indicator ManagersSelection; a number of 222, i. e. 31.14% of respondents, declared themselves in full agreement on the implementation of the management indicator.

From the point of view of the structure according to function, the teachers with the position of director appreciate that on average, the opportunity to implement the management indicator ManagersSelection would be in agreement. Teachers with the educator function appreciate that, on average, the opportunity to implement the management indicator is in accordance with their own vision.

As regards the indicator [Q25] (RecompensePolitics), the following stratification of the options is found among the respondents: 249 , respectively 34.92%, respondents agreed on the implementation of the policy management indicator RecompensePolitics; a number of 151, i. e. 21.18% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 87, respectively, 12.2% of respondents declared themselves in disagreement on this issue; a number of 58, i. e. 8.13% of respondents, declared themselves in total disagreement on this issue. In contrast, 168, i. e. 23.56% of respondents declared themselves neutral regarding the implementation of the RecompensePolitics management indicator.

As regards the indicator [Q19] (TrainingPolicies), the following stratification of options is found among respondents: 268 and 37.59% of respondents, respectively, agreed on an interactive learning process, in the workplace, assisted by experienced consultants; A total of 120, respectively 16.83% of respondents agreed to change the mindset among decision-makers, which will certainly lead in the future to a greater openness to further training and education; a number of 67 - 9.4% of respondents, said they disagreed on this issue; a number of 19 - 2.66% of respondents, declared themselves in total disagreement, this issue contributes to the opinion that it does not contribute to the acquisition of qualifications leading to the improvement of the level of education. In contrast, 239 - 33.52% of respondents said they were neutral about all

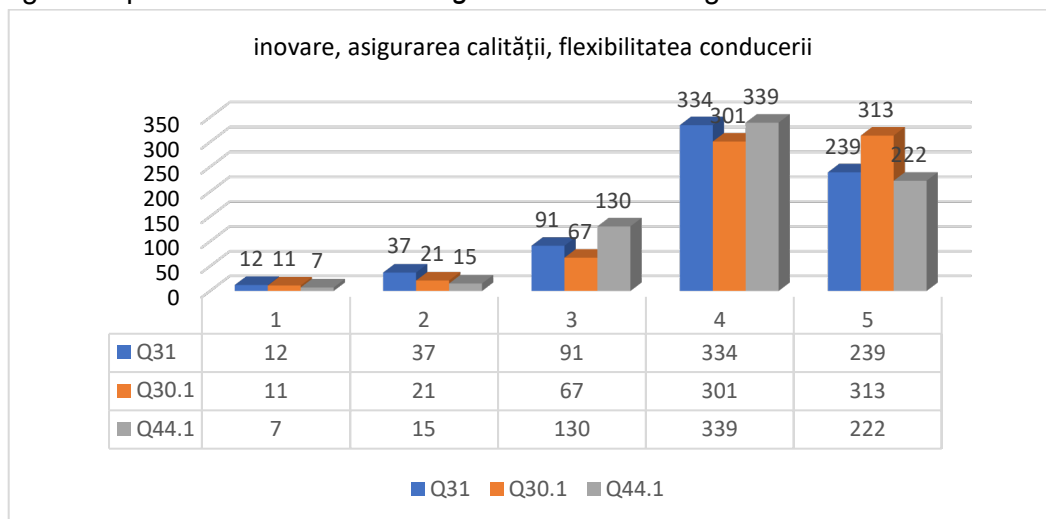
implementation measures that do not solve problems and do not really meet current needs. A long-term strategy for the development of the workforce through lifelong learning is not yet developed, nor is a unified view of the measures needed to meet the demands of the system, but especially the defined labour market.

**Table 3. 1. Correlations between Q19, Q72, Q84.2., Q89- CLUSTER G2**

Frecvența	Acord	Acord total	Dezacord	Dezacord total	Neutru	Total
Q19	268	120	67	19	239	713
	37,59%	16,83%	9,40%	2,66%	33,52%	100,00%
Q19/Total mediu de distributie	80,72%	70,90%	158,58%	131,03%	153,45%	99,89%
Q72	381	197	18	9	111	713
	53,44%	27,63%	2,52%	1,26%	15,57%	100,42%
Q72/Total mediu de distributie	114,76%	116,40%	42,60%	62,07%	71,27%	100,32%
Q84.2	347	199	23	11	133	713
	48,67%	27,91%	3,23%	1,54%	18,65%	100,00%
Q84.2/Total mediu de distributie	104,52%	117,58%	54,44%	75,86%	85,39%	99,89%
Q89	332	161	61	19	140	713
	46,56%	22,58%	8,56%	2,66%	19,64%	100,00%
Q89/Total mediu de distributie	100,00%	95,13%	144,38%	131,03%	89,89%	99,89%
Total mediu de distributie	46,56%	23,74%	5,93%	2,03%	21,84%	100,11%

Source: Author processing

Regarding the indicator [Q72] (*RecognitionResult*), the following stratification of the options is found among the respondents: 381 and 53.44% respondents, respectively, agreed on the implementation of the Management indicator *RecognitionResult*; A number of 197 - 27.63% respondents, declared themselves in total agreement on the implementation of the management indicator; instead, a number of 111 - 15.57% respondents, declared themselves in neutral regarding the implementation of the *RecognitionResult* management indicator.



**Figure 3.3. Frequency of innovation, quality assurance, flexibility of leadership**

Source: Author processing

Regarding the indicator [Q44.1] (*QualityPractice*), the following stratification of options is found among respondents: 339 and 47.55% respondents, respectively, agreed on the implementation of the quality Management indicator practice; A number of 222 - 31.14% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 15 - 2.1% of respondents, respectively, declared themselves in disagreement on this issue; a number of 7 and 0.98% of respondents, declared themselves in total disagreement on this issue. In contrast, 130 - 18.23% of respondents declared themselves in neutral regarding the implementation of the *QualityPractice* management indicator.

As regards the indicator [Q44.2.] (*EducationalPractices*) the following stratification of options is found among respondents: 295 respondents agreed on the implementation of the practical management indicator; 127 respondents declared themselves in total agreement; a number of 65 - 9.12% of respondents said they disagreed on this issue; a number of 18 - 2.52% of respondents, respectively, declared themselves in total disagreement on this issue. In contrast, 208 - 29.17% of respondents are relatively satisfied. Ensuring the participation of all important actors in the process of quality assurance and the development of organizational culture will have a focus on the achievement of quality indicators.

Regarding the indicator [Q76.2.9] (*Digitization*), the following stratification of the options is found among the respondents: A number of 325 - 45.58% respondents, respectively, agreed on the implementation of the management indicator digitalization; A number of 221 - 31% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 54 - 7.57% of respondents, respectively, declared themselves in disagreement on this issue; a number of 27 - 3.79% of respondents, declared themselves in total disagreement on this issue. In contrast, 86 - 12.06% of respondents declared themselves in neutral regarding the implementation of the *Digitalization* management indicator.

Regarding the indicator [Q3.] (*DynamicPlanning*), the following stratification of the options is found among the respondents: 349 - 48.95% respondents, respectively, agreed on the implementation of the DynamicPlanning management indicator; a number of 209 - 29.31% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 47 - 6.59% of respondents, respectively, declared themselves in disagreement on this issue; a number of 15 - 2.1% of respondents, declared themselves in total disagreement on this issue. Instead, 93 - 13.04% of respondents said they were neutral about the implementation of the *DynamicPlanning* management indicator.

As regards the indicator [Q8.] (*StaffPromotion*) the following stratification of the options is found among the respondents: A number of 315 - 44.18% respondents, declared themselves in agreement with the implementation of the Staff Promotion Management indicator; a number of 259 - 36.33% respondents, declared themselves in full agreement on the implementation of the management indicator; a number of 34 - 4.77% of respondents said they disagreed on this issue; a number of 17 - 2.38% of respondents, respectively, declared themselves in total disagreement on this issue. In contrast, 88 - 12.34% of respondents declared themselves neutral regarding the implementation of the *StaffPromotion* management indicator frameworks.

Regarding the indicator [Q12] (*EducationalResource*), the following stratification of the options is found among the respondents: a number of 293 - 41.09% respondents, respectively, agreed on the implementation of the Educational Resources Management indicator; A number of 222 - 31.14% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 72 - 10.1% of respondents, respectively, declared themselves in disagreement on this issue; a number of 37 - 5.19% of respondents, declared themselves in total disagreement on this issue. In contrast, 89 - 12.48% of respondents declared

themselves neutral regarding the implementation of the *EducationalResource* management indicator.

Regarding the indicator [Q33] (*Vision*), the following stratification of the options is found among the respondents: 325 - 45.58% respondents, respectively, agreed on the implementation of the vision management indicator. A number of 280 - 39.27% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 23 and 3.23% of respondents, respectively, declared themselves in disagreement on this issue; a number of 14 and 1.96% of respondents, declared themselves in total disagreement on this issue. In contrast, 71 and 9.96% of respondents declared themselves neutral regarding the implementation of the *Vision* management indicator.

Regarding the indicator [Q98] (*FreePrograms*), the following stratification of the options is found among the respondents: 295 - 41.37% respondents, respectively, agreed on the implementation of the Management indicator of the free Program; A number of 309 - 43.34% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 9 - 1.26% of respondents, respectively, declared themselves in disagreement on this issue; a number of 16 - 2.24% of respondents, declared themselves in total disagreement on this issue. Instead, 84 - 11.78% of respondents said they were neutral about the implementation of the *FreePrograms* management indicator.

Regarding the indicator [Q91](*DigitalDevelopment*), the following stratification of the options is found among the respondents: 292 and 40.95% respondents, respectively, agreed on the implementation of the *DigitalDevelopment* management indicator; A number of 181 - 25.39% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 55 - 7.71% of respondents, respectively, declared themselves in disagreement on this issue; a number of 20 - 2.81% of respondents, declared themselves in total disagreement on this issue. In contrast, 165 - 23.14% of respondents declared themselves neutral regarding the implementation of the *DigitalDevelopment* management indicator.

From the point of view of the structure by function, the teachers appreciate that on average, the opportunity to implement the management indicator *DigitalDevelopment* would be in agreement, because building the path to a green economy, eliminating poverty and sustainable economic development is a desired goal at global level.

Regarding the indicator [Q61.] (*ParentsCounselling*), the following stratification of the options is found among the respondents: 266 - 37.31% respondents, respectively, agreed on the implementation of the *ParentsCounselling* management indicator; a number of 392 - 54.98% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 9 - 1.26% of respondents, respectively, declared themselves in disagreement on this issue; a number of 5 - 0.7% of respondents, declared themselves in total disagreement on this issue. In contrast, 41 - 5.75% of respondents said they were neutral about the implementation of the *ParentsCounselling* management indicator.

As regards the indicator [Q73] (*AuditQualityAssurance*), the following stratification of the options is found among the respondents: 343 - 48.11% of respondents, respectively, agreed on the implementation of the *AuditQualityAssurance* management indicator; a number of 177 24.82% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 19 - 2.66% of respondents, respectively, declared themselves in disagreement on this issue; a number of 15 - 2.1% of respondents, declared themselves in total disagreement on this issue. In contrast, 159 - 22.3% of respondents declared themselves neutral regarding the implementation of the *AuditQualityAssurance* management indicator. From the point of view of the structure by function, teachers consider that on average,

the opportunity to implement the *AuditQualityAssurance* management indicator would be in agreement because changes in the labour market require measures in the education system as well.

Regarding the indicator [Q74] (*QualityAssuranceNationalStrategy*), the following stratification of the options is found among the respondents: 323 - 45.3% respondents, respectively, agreed on the implementation of the management indicator quality assurance of the national Strategy; A number of 178 - 24.96% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 33 and 4.63% of respondents, respectively, declared themselves in disagreement on this issue; a number of 20 - 2.81% of respondents, declared themselves in total disagreement on this issue. In contrast, 159 - 22.3% of respondents declared themselves neutral regarding the implementation of the *QualityAssuranceNationalStrategy* management indicator.

From the point of view of the structure by function, the teachers appreciate that on average, the opportunity to implement the *QualityAssuranceNationalStrategy* management indicator would be in agreement. Education funding should be done according to the needs discovered, which is a priority at national level, but performance is not taken into account because local public authorities do not have the resources to finance all projects and central authorities have never allocated the right amounts, despite the statements of all politicians.

As regards the indicator [Q79.] (*AssessmentInterpretation*) the following stratification of the options is found among the respondents: 332 and 46.56% of respondents, agreed on the implementation of the *AssessmentInterpretation* management indicator; 180 and 25.25% of respondents, declared full agreement on the implementation of the management indicator; a number of 29 and 4.07% of respondents said they disagreed on this issue; a number of 16 and 2.24% of respondents, respectively, declared themselves in total disagreement on this issue. Instead, 156 and 21.88% of respondents said they were neutral about the implementation of the *AssessmentInterpretation* management indicator.

From the point of view of the structure by function, the teachers appreciate that on average, the opportunity to implement the *AssessmentInterpretation* management indicator would be in agreement

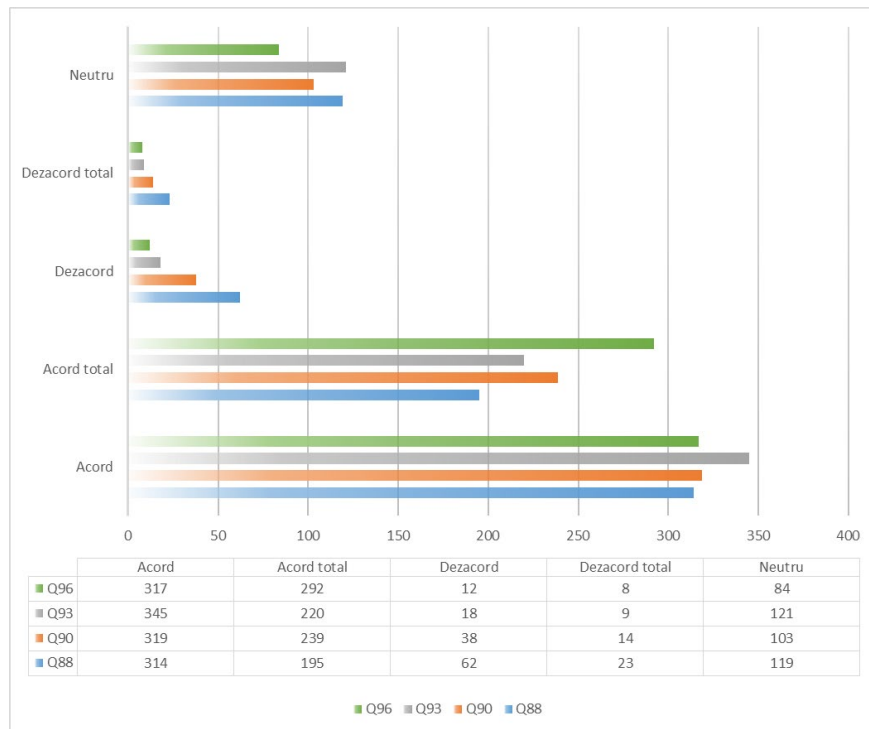
From the point of view of the structure on functions, the teachers appreciate that on average, the opportunity to implement the *Confidentiality* management indicator would be in agreement so that the student does not feel inferior compared to the other formable.

Regarding the indicator [Q88] (*SystemChallenges*), the following stratification of the options is found among the respondents: 314 and 44.04% respondents, respectively, agreed on the implementation of the *SystemChallenges* Management indicator; a number of 195 - 27.35% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 62 - 8.7% of respondents, respectively, declared themselves in disagreement on this issue; a number of 23 - 3.23% of respondents, declared themselves in total disagreement on this issue. Instead, 119 - 16.69% of respondents declared themselves neutral regarding the implementation of the *SystemChallenges* management indicator.

Regarding the indicator [Q90] (*Sustainability*), the following stratification of the options is found among the respondents: 319 - 44.74% respondents, respectively, agreed on the implementation of the sustainability management indicator; A number of 239 - 33.52% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 38 - 5.33% of respondents, respectively, declared themselves in disagreement on this issue; a number of 14 - 1.96% of respondents, declared themselves in total disagreement on this issue. In contrast, 103 - 14.45% of respondents said they were neutral about the implementation of the *Sustainability* management indicator.

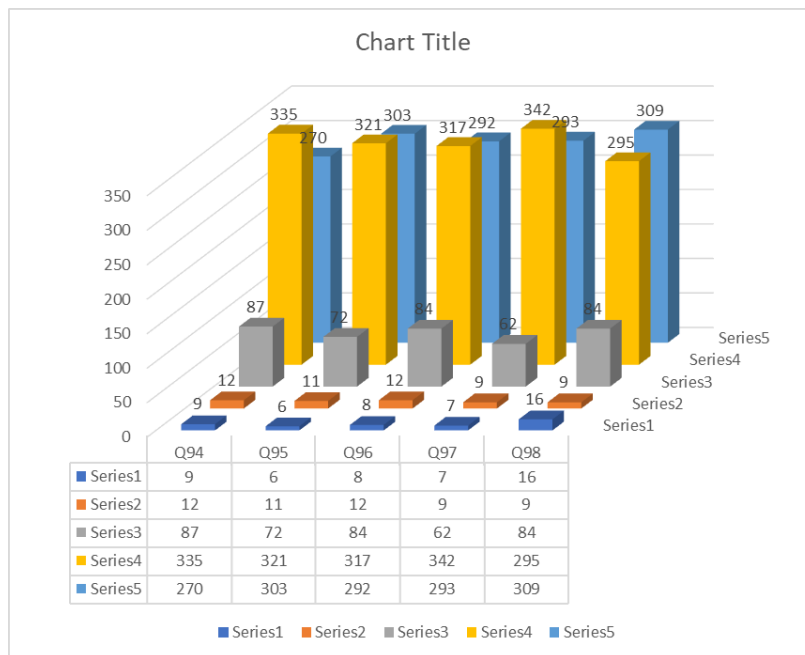


As regards the indicator [Q96] (*BestPracticesExchange*), the following stratification of options is found among respondents: 317 - 44.46% of respondents, respectively, agreed on the implementation of the management exchange of best practices indicator; A number of 292 - 40.95% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 12 - 1.68% of respondents, respectively, declared themselves in disagreement on this issue; a number of 8 - 1.12% of respondents, declared themselves in total disagreement on this issue. In contrast, 84 and 11.78% of respondents said they were neutral about the implementation of the *BestPracticesExchange* management indicator.



**Figure 3.4. Correlations IM Cluster G9**  
 Source: Author processing

Regarding the indicator [Q94] (*AgeLevelMaterials*), the following stratification of the options is found among the respondents: 335 - 46.98% respondents, respectively, agreed on the implementation of the *AgeLevelMaterials* management indicator; a number of 270 - 37.87% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 12 - 1.68% of respondents, respectively, declared themselves in disagreement on this issue; a number of 9 - 1.26% of respondents, declared themselves in total disagreement on this issue. In contrast, 87 - 12.2% of respondents declared themselves in neutral regarding the implementation of the *AgeLevelMaterials* management indicator.



**Figure 3.5. Correlation IM on the realization of materials adapted to students**  
 Source: Author processing

Regarding the indicator [Q97] (*OnlineSafety*), the following stratification of options is found among respondents: 342 - 47.97% respondents, respectively, agreed on the implementation of the management indicator *OnlineSafety*; a number of 293 - 41.09% of respondents, declared themselves in total agreement on the implementation of the management indicator; a number of 9 - 1.26% of respondents, respectively, declared themselves in disagreement on this issue; a number of 7 - 0.98% of respondents, declared themselves in total disagreement on this issue. In contrast, 62 - 8.7% of respondents said they were neutral about the implementation of the *OnlineSafety* Management indicator.

### 3.4. Application of methods for identifying the quality of educational services

#### 3.4.1. SERVQUAL Method

The SERVQUAL method is the most widely used method for assessing service quality and has been experienced in a variety of specific contexts [51].

*Table 3.2. The overall (weighted) quality of service*

Nr.crt	Dimension	The average quality of service	Weight %	Weighted average quality of service
1	TANGIBLE ELEMENTS	-0,87	11%	-1,21
2	SAFETY	-3,06	32%	-0,9792
3	RECEPTIVITY	-0,93	22%	-0,2046
4	TRUST	-0,98	19%	-0,1862
5	EMPATHY	-1,48	16%	-0,2368
	<b>TOTAL</b>			-2,8168/5= -0,56336
	<i>The overall (weighted) quality of service</i>			

*Source: Author processing*

Regarding the final result of the assessment – the “ServiceQuality” indicator expressed as the difference between perceptions and expectations – the interpretation is as follows:

- **negative values show poor quality, a reality felt by all the actors in the system – pupils, teachers, parents, managers during the SARS-COV II pandemic.**

### 3.4.2. Dimensions of electronic services (ISJ website). eQUAL method

As regards the final outcome of the assessment – the indicator analysed expressed as the difference between perceptions and expectations – the interpretation is as follows:

- **negative values show poor quality at the level of the entire education system, observed score in all PISA tests, national exams, employability of young graduates, etc.**

### 3.5. Validation of the hypotheses

As regards the validity of the research assumptions established in this scientific endeavour, they were analysed in the light of the data collected through the questionnaire submitted and the following results were obtained (Table 3.64).

*Table 3.3. Regarding Validation of hypotheses*

HYPOTHESIS	<i>Hypothesis validation/disprove</i>
<i>O1 - H1. There is a direct relationship between strategy and material resources in school units.</i>	<i>Confirmed</i>
<i>H2. There is a direct relationship between strategy and human resources in school units.</i>	<i>Confirmed</i>
<i>H3. There is a direct relationship between strategy and the quality of educational services in school units.</i>	<i>Confirmed</i>
<i>H4. There is a direct relationship between the communication/ collaboration/ mediation of conflicts in the school institution and the management strategy aimed at ensuring the quality of educational services.</i>	<i>Confirmed</i>
<i>H5. There is a direct relationship between the promotion of sustainable and quality employment in the school institution and the management strategy aimed at ensuring the quality of educational services.</i>	<i>Partially Confirmed</i>
<i>H6. There is a direct relationship between promoting social inclusion, combating poverty and any form of discrimination in the school institution and the management strategy aimed at ensuring the quality of educational services.</i>	<i>Partially Confirmed</i>
<i>O2 - H1. Situational leadership positively influences the quality of educational services in pre-university education.</i>	<i>Partially Confirmed</i>
<i>H2. Decisional autonomy/ decentralization at the level of the local and regional Community positively influences the quality of educational services.</i>	<i>Disproved</i>

<i>H3. There are significant differences between the level of perceptions and the level of expectations of teachers regarding the quality of service provided by school managers to ensure quality in the pre-university education system.</i>	<i>Confirmed</i>
<i>H4. The assessment of the trends registered by the education system at national / European level (worldwide) positively influences the quality of educational services in pre-university education.</i>	<i>Disproved</i>
<i>H5. The assessment of the teacher from the organization, parents, pupils and employers positively influences the quality of educational services in pre-university education.</i>	<i>Partially Confirmed</i>
<i>H6. Consultation of employers and of the Community on the relevance of the study programs positively influences the quality of educational services in pre-university education.</i>	<i>Partially Confirmed</i>
<i>O3 - H1. The implementation of a quality assurance system influences the quality of strategic planning in pre-university education units.</i>	<i>Disproved</i>
<i>H2. The teachers' promotion of the values of the institution and the interest in the needs of the employees contribute to the achievement of the objectives of the school institution.</i>	<i>Confirmed</i>
<i>H3. In educational institutions, basic, high-quality education is guaranteed to all in order to have the capacity to exercise their basic rights as adult citizens.</i>	<i>Partially Confirmed</i>
<i>H4. The promotion of a quality culture is positively influenced by the attitude of the management team.</i>	<i>Partially Confirmed</i>
<i>H5. The existence of an appropriate organizational infrastructure contributes to increasing the responsibility of employees toward the importance of quality in schools.</i>	<i>Partially Confirmed</i>
<i>H6. Identifying critical success factors of TQM implementation in education influences the quality of strategic planning within pre-university education units.</i>	<i>Disproved</i>

Source: Author processing

### 3.6. Intermediary conclusions

For the purpose of formulating conclusions, the results, obtained based on the analysis of the responses offered to the questionnaire addressed to, were summarized according to the specific objectives of the research.

Thus, the analysis of the results that enabled **O1 - The connection of the educational system to the requirements of the labour market and the determination of the main dimensions of a managerial strategy for quality assurance in the pre-university education in Romania**, showed that, within the first specific objective set out in the scientific approach, we identified a number of problems and needs:

- ✚ insufficient concern of school managers in valuing and materializing the activities of control and evaluation of teachers;
- ✚ poor assessment of educational establishments performance (examinations, institutional and human resources assessment);
- ✚ reduced financial resources for improving the technical-material base in schools, facilities; and lack of skills for using digital technologies.

Regarding the second specific objective of the research, namely **O2 - Structuring a managerial strategy model or a strategic formula to ensure quality in the pre-university education in Romania**, from the analysis of the data collected on the basis of the questionnaire we can extract a number of already identified demotivating factors:

- ✚ there is a need for ongoing research of labour market needs, institutions must adapt to new plans and programs;
- ✚ new entrants are poorly trained, with neither time nor interest to be properly counselled;

Objective **O3 – Identification of the role of total quality management within pre-university education institutions**, from the analysis of the data collected on the basis of the questionnaire we can extract a number of demotivating factors:

- ✚ evaluation of learning outcomes should be correlated with the analysis of the degree of satisfaction of all learning beneficiaries, there should be feedback and improvement measures;
- ✚ shortcomings in the contextualization of performance data;

## CHAPTER IV

### Quantification of the need for quality in the education system in Romania through social sustainability models. Solutions and perspectives of quality

The need for quality in the Romanian education system is a reference indicator of the results of the Romanian education system in the dynamics and relative dimension in relation to the outputs of other education systems around the world.

#### 4.1. Contributions to quality management in education. Define the social sustainability model applicable in education

Based on the above, we define **THE MODEL OF SOCIAL SUSTAINABILITY THROUGH QUALITY MANAGEMENT IN EDUCATION**, the model that succeeds on the basis of current achievements in management, social innovation, labour market orientation and sustainable components of the educational offer to improve in a viable medium term the quality parameters in education management so that, in the perspective of 2030, Romania can identify with the values of the European education system in terms of sustainable development and create the necessary framework for improvement significant quality of human resources in a global environment and with confirmed expected well-being.

To design **The model of social sustainability through quality management in education** we will critically evaluate the 4 basic components that generate improvement needs at the level of the system:

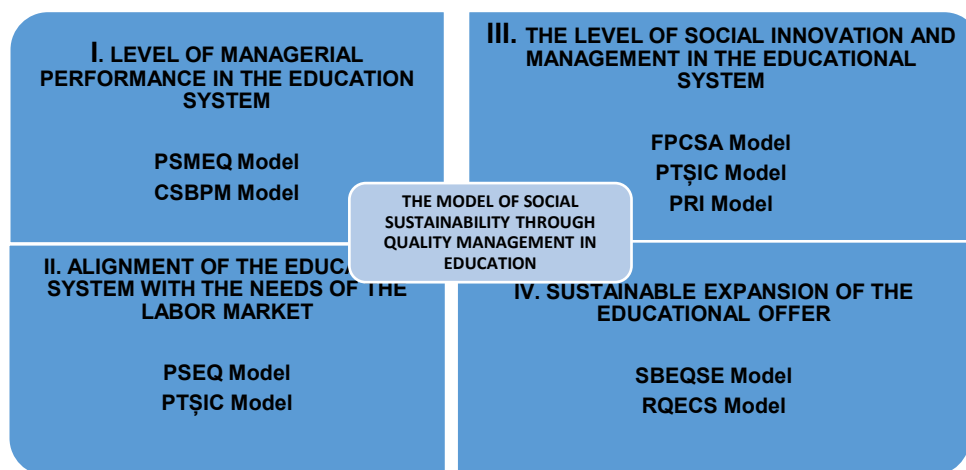


Figure 4.1. The Scoreboard of the model of social sustainability through quality management in education

Source: Produced by the author

#### 4.2. Performance indicators of the educational system in Romania

For the calculation of the performance indices of the educational system in Romania, we conducted, by the help of the SPSS program version 25, the analysis of the Pearson correlation

coefficients of the study variables in the questionnaire. The Pearson correlation table is shown in Annex 3.

We define the global performance index of the IP education system, being the average of the indices of the 60 indices of the variables defined in the questionnaire used for the research of the educational system (Annex 1).

The data presented above were integrated into the IPGLOBAL variation chart of the Romanian educational system, whose polynomial regression equation is determined by the trend right.

One solution is to individualize teaching-learning, student-centred approach. Today, in the current context, teachers have to recover the material that they failed to transmit in the best conditions, and the teaching act requires that the student be helped by modern educational methods, with the individual involvement of each child. Remedial hours are the solution, but here too, the payment is delayed, only the teacher's abnegation is taken into account, the school's struggle with the lack of resources, or if teachers participate in ICT training courses, use learning platforms, and the educational spaces of schools are configured so that they can support, In optimal conditions, the appropriate endowment with ICT equipment and educational tools.

#### **4.3. Sustainable quality in education - IGCSE**

Total quality management in education should include a systemic view of quality. Increasing the performance of the education system stimulates the use of a strategy to improve the quality of education.

**THE SUSTAINABLE QUALITY MODEL IN EDUCATION – IGCSE** aims to demonstrate how the results and performances of students are determined by the expectations, identified needs, perceived value of school institutions conditioned by employee loyalty, teacher expectations, involvement in training, continuous development, research – innovation, The value perceived by the community on the performance of the institution which is conditioned by the facilities provided, the resources available to it, the partnerships concluded, the financial support provided by the EMI and the economic operators, the environment where it evolves and new trends, such as the increasing competition between education institutions, increasing education standards, beneficiaries' demands as markets become more competitive, in the context of globalization and digitalisation that have imposed new disciplines. Therefore, the proposed model takes into account the fact that only those schools that provide quality education, constructive environment and facilities can survive on the educational market. I propose to determine sustainable quality in education through the Global Education indices.

#### **4.4. Intermediary conclusions**

The overall performance of the management index can increase if educational institutions are strongly anchored in the development of the workforce, if the economic agents investing in workers' training and innovative capital and processes form a global network at the heart of it being the present and future workforce.

## CHAPTER V

# Conclusions, managerial implications and contributions of the research carried out in the development of quality management in education

### Research ethics

- ✚ To ensure that teachers, inspectors, managers of pre-university education institutions trust that we will not disclose any information about their identity and that they can refuse or cancel their participation in research, we have taken ethical action, we analysed and commented on the results obtained from the application of the questionnaire and did not mention or indicate any reference to the identity of the persons.

### Future research directions

- ✚ Integration of indices proposed at the level of all educational institutions after the legislative process;
- ✚ Implementing The Sustainable Quality Model in education and using the solutions indicated in the scoreboard in all pre-university education institutions;
- ✚ The application of research results to schools in other European countries, followed by a comparative analysis of these results;
- ✚ The analysis of educational institutions' websites from the perspective of quality indicates a signal for their realization from the perspective of the beneficiaries and not from the perspective of the creators.
- ✚ Creating workshops for school managers to know how to calculate management indicators, global performance indices, global sustainable quality index, global sustainable non-sustainability index.

**The theoretical contributions** of this thesis, addressed to in the first two chapters, are focused on the following aspects:

- ❖ A new definition of quality in education, seen as a systemic model based on an innovation-oriented policy based on a quality assurance strategy leading to performance in the global labour market;
- ❖ A new interpretation of the principles of total quality management applied in education;
- ❖ Comparison of globally representative quality assurance systems;
- ❖ Diversification strategies (prevention – insurance, risk minimization), strategic targets – defensive strategies (taking action – high-risk tasks) to eliminate weaknesses and counter threats;
- ❖ Focusing from the evaluation of inputs (processes, organizational procedures) on the evaluation of the deep, long-term results (outcomes) of the provision of educational services;
- ❖ Synthesis of elements related to internal and external evaluation processes in total quality management at the level of institutions in pre-university education;



- ❖ Identifying and explaining quality models that have proven successful in their application in educational institutions, starting from their application by economic agents;
- ❖ Providing scenarios for capturing opportunities to adapt management strategies to the realities of pre-university education in Romania;
- ❖ The comparative approach of good practice of applying quality in education which served as the basis for the empirical study of Chapter 3;
- ❖ Identifying the objectives required by the connections between G1-G10 clusters;
- ❖ Defining the model of social sustainability through quality management in education, the model that succeeds on the basis of current achievements in management, social innovation, labour market orientation and sustainable components of the educational offer to improve in a viable medium-term quality parameter in education management;
- ❖ Systemic vulnerability identified by the distributed questionnaire;
- ❖ Achievement of the proposed conceptual framework for the IGCSE model;
- ❖ Sustainable quality model in education – the proposed IGCSE aims to demonstrate how students' results and performance;

**The practical contributions** of the thesis emerge from the studies presented in extenso in Chapters 3 and 4 and can be summarized as follows:

- ❖ Comparative analysis of the average values of indicators in the structural model in the eight regions of the research sample;
- ❖ Determining variables with high correlative indices within the conceptual model associated with the correlational study, which focuses on assessing the impact of leadership at the level of pre-university education in Romania on the quality of education; using analysis in main components and factorial analysis;
- ❖ Analysis of correlations between variables integrated into ten clusters by applying appropriate statistical methods: Pearson Chi-Square, Pearson R, Spearman, regression analysis and ANOVA;
- ❖ Determining sustainable quality in education through the Global Education indices;
- ❖ Policy model and management strategy favourable to the development of quality education (PSMEQ);
- ❖ The model of increasing the satisfaction of beneficiaries through managerial planning (CSBPM);
- ❖ The model of training of staff needed to provide quality educational services (FPSEQ);
- ❖ The Education Policy model through sustainable Partnerships and quality resources (PEPSRQ);
- ❖ The training process for increasing employee satisfaction (FPCSA) model;
- ❖ Model processes needed to transform schools through research innovation (PTSIC);
- ❖ Partnerships and resources for Innovation (PRI) model;
- ❖ The satisfaction of the beneficiaries of education through the quality of educational services (SBEQSE) model;
- ❖ The role of quality Education in sustainable Growth (RQECS) model
- ❖ Discover the Global sustainable quality Index in Education, the sub-unit value determined on the basis of partial correlations with the values of the management indicators grouped in the 10 clusters (G1-G10) represented by the Pearson correlation indices;
- ❖ Identifying the model of sustainable quality in education through educational management indicators;

- ❖ The global IP educational system performance index, based on the average of the indices of the 60 variables defined in the questionnaire used to research the educational system;
- ❖ The model of social sustainability through quality Management in Education, which succeeds on the basis of current achievements in management, social innovation, labour market orientation and sustainable components of the educational offer to improve in a viable medium-term quality parameter in education management;
- ❖ The realization of the global IP variation chart of the Romanian education system, whose polynomial regression equation is determined by the trend right, and the strengths of the education system are those at the top, with green, the weak points are those at the bottom with red;
- ❖ Defining the Global sustainable quality Index in Education;
- ❖ Defining the Global Index of sustainable non-sustainability in Education

There are important managerial implications arising from empirical studies conducted in this thesis.

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