

PROFILE METHOD – AN EXAMPLE OF MULTIDISCIPLINARY APPLIED METHOD

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Abstract: *The paper describes the practical use of the method of statistical profiling in various disciplines, underlining the importance of this new method concept as applied to multidisciplinary approaches. The method is described briefly in the introduction and applied in the third section, after the second section has detailed the multidisciplinary innovative management process. The practical results of applying the method in innovative educational systems are further detailed, based on both the specifically multidisciplinary nature of this type of processes, and the profile method applied. A final remark ends the paper in a structuralist, schematic and optimistic manner.*

Keywords: *statistical profile, the profile method, innovative educational process, management in innovative educational processes, profiled skills.*

1. INTRODUCTION

Along with the models and variables, even the methods can become multidisciplinary, in their use within several specific disciplines, or simultaneously within a multidisciplinary reality.

As part of this picture, one can define methods that can be applied in a multidisciplinary manner, being able to implement the method or approach mostly in multidisciplinary areas.

The profile method, as presented and applied in this paper, confers powers to shape permanent individual profiles of the real outer environment, of the educational, human, entrepreneurship, etc. milieu.

The aspects of the applied, practical diversity are not sufficient, as the method becomes consistently applicative in a multidisciplinary manner only after its validation as a method applied to realities approachable only in the multidisciplinary manner. The methods, applied in this way, induce the need to put them to better use, to implement and generalize their results by original techniques and instruments, which are simple but effective.

The statistical profile method is one of the simplest solutions, which can thus become the very method of decision-making management, by profiling, at the interference region with the multidisciplinary decisional management area, or, in the special case presented in this paper, the method of shaping and training management skills in innovative educational processes through profiles.

The argument of the conceptual simplification of the applied multidisciplinary method is given by one of the statements made by Ștefan Odoleja (1984) that "it is not

the object or the subject, but the method that determines science".

The nature of the managerial phenomenon reveals at least three dimensions, namely the presence of the unknown or the limit lent by the latter to the object observed (in the sense of an innovative educational process exposed to a managerial decision, or an educational entity facing an objective problem), the limit of the observer's power or competence (i.e. the teacher manager), and especially the limit of the method used in the management process (equipment, instrument).

The relativity of the comprehensive type of knowledge or of comprehensive analysis, limitation as a result of the indistinguishable, imperceptible presence of the unknown, always gives other managers or management theorists the opportunity to identify, seek and try new solutions.

The new method, which is applied here in a multidisciplinary manner, as the approach of management by profiling, is a management and leadership method by which the function of information and decision-making sees hypertrophy and decision can be completely influenced by the profiles used as a support.

The approach based on the method of profiling is also a synectic solution. Gordon's *Synectics* is suitable and indicated for selecting a single idea or a for identifying an original solution, and generates stages that have already become classical in innovative educational processes: forming the synectic group, presenting the problem, setting the synectic itinerary, developing the problem solving model, and finally testing and application of the model (Săvoiu G., Jaško O., Dulanović Z., Čudanov M., Crăciuneanu, 2008; Săvoiu, Jaško & Čudanov, 2009).

The typology of the profiles that can be used is extremely diverse, from temporal or dynamic profiles to local / territorial or hierarchical profiles, from coordination profiles defined by differences and gaps to intensity profiles, from structural profiles and average profiles, to the profiles centred on extreme (minimum or maximum) values, from demographic profiles, to statistical profiles, from climatic or geographic profiles to innovative educational profiles, a.s.o.

Various specific operations can be defined by using profiling, from the intersection of some of them, to the reunion of others meeting or the complementary of a profile, as operations similar to those in set theory.

A standard profile involves both a selection of the profile design variables, as an operation subsequent to dispersion analysis, and a final sequencing of the profile variables in accordance with the values of the determination coefficient for the characteristic features considered to be explanatory,

or likely to be able to tackle the newly emerged management problem that requires prompt decision.

To briefly illustrate the applied multidisciplinary applicative nature of the new method, one can have recourse to the dominant demographic profile resulting from the natural involvement of demography into the interstices, or on its borders with other sciences, sometimes even penetrating into the body of some of them.

The demographic profile of the unemployed and the offender are only two examples of the multidisciplinary or interdisciplinary intersections of demography and economics or criminal law.

The demographic profile of the unemployed in the Romanian economy, in the year prior to its accession to the European Union, is outlined by significant statistical issues: a) in 6.6 out of 10 cases, the unemployed has already had a job; b) they originate mainly from industrial enterprises with large financial losses, especially in the category of companies having undergone or going into liquidation; c) in almost 6 cases out of 10 the unemployed is male; d) in about 7 cases out of 10 they live in urban areas; e) they belong to the 15-24 age group with a probability three times higher than any other age group; f) the average unemployment period exceeded 21 months; g) in 62 cases out of 100 the highest education level completed is secondary school, etc.

The demographic profile of the prisoner in Romania, in the same pre-accession year, as a result of the analysis of the prison population, also emphasizes various aspects as important and defining as the ones above: a) one person in custody pending trial out of two is 21 to 30 years of age; b) one in three inmates has been convicted to terms between 3 and 5 years; c) 54 inmates out of 100 male inmates are from urban areas; d) 64 out of 100 female inmates are from the same urban environment; e) 45 out of 100 male inmates have completed secondary/middle school, 14 have completed vocational school, 12 graduated high-school, 18 completed primary school, and 9 are illiterate; f) 38 out of 100 female inmates have completed secondary/middle school, 5 have completed vocational school, 20 graduated high-school, 16 completed primary school, and 17 are illiterate, etc. (Săvoiu, Manea and Simoni, 2008).

If we operate an intersection of the two profiles, most of the offenders and criminals are from the demographic profile of the unemployed, and this is an example of a process of intersection with profound social and managerial implications.

Supposing a managerial decision is envisioned to use probation as a solution to reduce prison spending, but also for the gradual integration of offenders and criminals into the social and economic environment, it will be found that both the above profiles can be significant as an informational support, and an operation of reuniting the two profiles will be needed.

The outstanding valences of the profiling method as an expression of the multidisciplinary applied approaches, and the growing utility of profiling projections and forecasts continuously extend the area of its various uses, and as a result of the finding that statistical profile has real qualities of managerial decision support.

2. THE MANAGEMENT OF INNOVATIVE EDUCATIONAL PROCESSES

"Change is the law of life. Those who look only to the past or the present will certainly miss the future," said, almost 60 years ago, none other than John Kennedy.

In its contemporary sense, innovation is increasingly pragmatic, and more quickly turned into actuality. The innovation efforts become practical innovation in relatively fewer cases in relation to the expectations, and when they fail, especially in the educational processes, the cause is the managerial decision-making difference or the managerial culture gap between the aspirations of the teacher manager and the capacity of the innovative educational organization or entity.

Roy Rothwell, in his book "Managing Innovation and Change", published in 1991 and reprinted in 2002, 2003 and 2004, makes a retrospective analysis of the innovative, especially industrial, process (which the synoptic view intended by the present contribution adapted and integrated in the educational process), identifying no less than five successive generations that contributed to the maturation of both the process itself and its management:

a) the generation of teachers managers of the first two postwar decades (the first generation of "technology push", focused not so much on the new concept of research and development, or "R&D", which was in the early stages of large-scale implementation of industrial innovation, and less educational innovation); b) the generation of the second half of the '60s, and also of the '70s (a generation experiencing the first attempts at rationalizing the technological and financial changes, no less than the increasing importance of long-term "R&D", and in the innovative educational processes, according to the opinions, relatively belated in relation to the staging of the original, namely those in 1984 of R.L. Daft & K.E. Weick, who practically identified four specific entities in relation to the relationships developed, proceeding from those that initiate a "perspective or visualisation not oriented on a long term", to those receiving the benefit of "conditioned" strategies, then the evolved alternative of the entities capable of making "discoveries in learning with a strategic impact", and, finally, to those able to "adopt original educational strategies"); c) the generation of the decade of the 80s (now the innovative axis describes innovation itself as a network meant to adapt to the internal and external environment of the educational entity, bringing together business and academic or research communities, and the educational entities in an administrative context, according to Rothwell and Zegveld, in 1982 and 1985); d) the generation of the decade of the 90s (when the computer-assisted educational processes become dominant, based on simulations and databases, innovative educational technologies, etc., as the 1992 paper of Rothwell indicates); e) the new generation after 2000 (where internet communication, social networking groups become educational components whose importance in the process is more and more significant, and the new information

solutions focused on tablets and integrated phones are likely to be gradually assimilated, and educational space and time dilated, thus resizing the new innovative educational processes).

Henry Chesbrough, a professor at Berkeley University, seems to have been the first to use the term *open innovation* (in 2003), later taken over in a book containing the new innovative concept in its very title (*Open Innovation*, 2003), which generically redefined the fifth generation described above, and the new innovative educational system is increasingly linked to the concepts of networking, managerial IP, collaboration across networks and educational systems, corporate entrepreneurship of the new technologies, the absolute domination of the R&D, the more extended stock of basic knowledge and the information which is distributed exponentially, the need for an increasingly mobile and better educated workforce, and also for continuous educational processes, etc.

In general, open innovation dictates entities and organizations how to make better use the growing stock of their knowledge. Open innovation provides a type of education with a permanent processing of the side effects, which can thus be anticipated (Gwartney and Stroup, 1993).

In education and the economy alike, "the most common source of error is ignoring side effects and long-term consequences," the authors of the ten principles of economic thought and economics emphasized in full fairness.

In terms of the innovative educational entity, management studies have long considered side-effects as a negative phenomenon (De Jong, Vanhaverbeke, Kalvet & Chesbrough, 2008).

The paradigm of open innovation ensures the premises for the entities to be able to benefit from the side effects by acquiring external knowledge, deliberately or through outsourcing of internal knowledge.

In a way, increased side effects suggest that it takes political interference to a lesser and lesser extent, yet, in a world of open innovation, political interventions have become more important than before.

The OP (Open Innovation) model is closely related to the model of innovation systems. Both models were developed in various disciplines of managerial content (from economy to education, market, quality assurance), and the similarities between these two specific contemporary paradigms or approaches cannot be denied.

Similarity and complementarity between models of open innovation (OI) and systems of innovation (IS)

Table no. 1.

Open Innovation (OI) <i>(Chesbrough, 2003; Chesbrough, West & Vanhaverbeke, 2006)</i>	Systems of Innovation (SI) <i>(Lundvall, 1992; Edquist, 1997; O'Doherty & Arnold, 2003)</i>
1. Entities get better results if they open innovative systemic process, where the external environment is also included.	1. Innovation is the result of complex and intense interactions between various internal and external actors.
2. Open innovation is no longer exclusively belongs to the R&D department. The initial stage of modelling, addressed traditionally, provided an incomplete picture of how innovation could be organized	2. The linear model, where the knowledge relating to activities are divided into supply and demand, is no longer appropriate, and has fewer and fewer of the systems.
3. Entities can benefit from a study of the purpose of input and output elements of knowledge. Dissemination of knowledge especially offers opportunities.	3. Dissemination of knowledge is essential to the functioning of the innovation system, and are very desirable. Functioning of innovation systems can be hampered by failures of capacity and network.
<i>Entities need both internal innovation skills (other than R&D) and skills for connecting with the external environment in order to become competitive.</i>	<i>Functioning of innovation systems can be hampered by limited capability and network failures.</i>
For entities increasingly dependent on external sources, infrastructural arrangements (e.g. intellectual property rights) and other general conditions of the work system are becoming increasingly important.	<i>Functioning of innovation systems can be hampered by institutional failures, and also by the working system.</i>
The increased mobility of the workforce and the presence of a trained workforce are important trends that erode the closed innovation model.	Human and social capital provide the lubricant needed to for the innovation system.
If the innovative entity cannot benefit internally from its innovations, maybe others will.	The social benefits of innovation exceed those of individual innovative actors.

Source: Chesbrough, 2003; Chesbrough, West & Vanhaverbeke, 2006; Lundvall, 1992; Edquist, 1997; O'Doherty & Arnold, 2003

In a general sense, the similarity as well as complementarity between the two types of models, OI and SI, generating an increasingly extensive scientific literature devoted to innovative educational processes, reveals that previous failures, once discussed and analyzed by innovative systems (IS) can be used to legitimize policies favourable to open innovation (OI).

The paradigm of open innovation implies that entities should develop their internal competencies (e.g. those concerning corporate and entrepreneurship knowledge and experience), as well as their ability to have in-depth knowledge of the external sources (through defining competencies, skills or qualities, or through appropriate behaviour in networks, through collaboration, etc.).

Training decision-making skills (technical, interpersonal, relating to self-improvement) in innovative educational processes is therefore an important point of open innovation approaches.

A clear answer to a question about which might be the most effective manner of training decision-making skills in a truly innovative entity, which designs and provides the best experience, through exceptional qualities and knowledge, on a particular behavioural pattern dominated by sociability, principledness, responsiveness, courtesy, proper dress and morality, can be given only if the key instruments, techniques and methods are analyzed and selected, combined in the management of innovation processes, out of the wide range of managerial methods.

Once the decision-making skills formed appropriately, they will allow the teacher manager of the educational entity to imagine a future with realism and honesty and try to achieve it, realistically starting from what is currently available.

3. THE METHOD OF EDUCATION MANAGEMENT THROUGH PROFILES

The skills of the manager of an educational process, resulting from the combination of the three statistical profiles, shaped by the opinions of the golden triangle in any educational system, the Romanian one included (student, parent, teacher) can serve as significant milestones in subsequent systematic training of managers.

To properly shape a complete profile, made up of the reunion of 3 distinct profiles, three samples were collected from the three natural populations involved in innovative educational processes: a sample of pupils / students dominated by students ($E_{\text{pupils and students}}$) $n_1 = 168$ people, (158 high-school students from all classes and 10 students

in the first year), a sample of parents (E_{parents}) $n_2 = 22$ people, and a sample of teachers (E_{teachers}) $n_3 = 16$ people. In the research proper, for each single profile different questionnaires were used as far as the total number of questions was concerned; the questionnaires of the three surveys conducted to delimit the statistical profile basically included:

a) $C_{\text{pupils and students}} = 14$ questions; b) $C_{\text{parents}} = 18$ questions; c) $C_{\text{teachers}} = 21$ questions.

Ever since the questionnaires were designed, the option was made to build a radial profile, and thus several individual options were possible for the same question in terms of methodology; finally, the result was analyzed in terms of maximum frequency with which a certain response was declared (grading both the unique answer and the two or three response variants identically, in order to have the maximum range optionally in the radial profile).

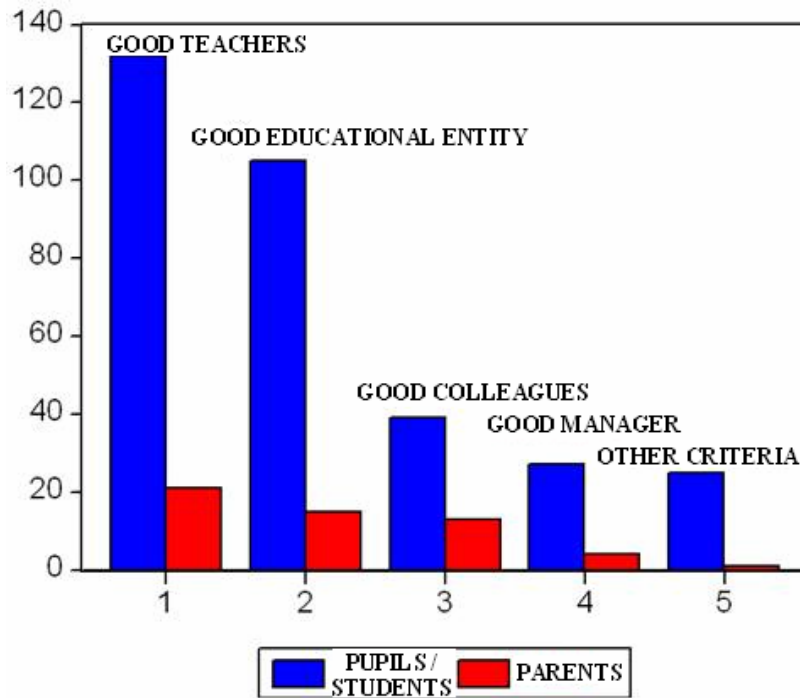
There are several questions in each questionnaire that clarify, from the very outset, the importance of the teacher manager in the innovation education process, namely in conceptualizing an adequate, quality-oriented education in accordance with the opinion of students, parents and teachers, but only a small fraction of all the questions were designed for the investigations related to training managerial skills in the innovative educational entities, being combined in the intersected profile of the teacher manager of the educational entity, namely only 10 questions, three from the questionnaire designed for the samples of students and parents, and four from the questionnaire devoted to the teachers.

A first question is reunited in the three samples, i.e. everybody's opinion of about the similarity of content between a good school and a good manager, and another one, addressed to the teachers, concerning the reality of the fact that the manager encourages the initiatives of the other actors in the process (teachers, students and parents) faces, and is reunited with, the decisions and the opinions of the members of the student council, with the important decisions communicated directly, and also with the existence of integrated relations between manager teachers, teachers, pupils/students, and parents.

In the profile built by the pupils/students, correlated with the one built by the parents, the competent manager is placed under the level of the competent teacher, under the level of the school in point of tradition and even competence, and even under that of the competent colleagues, which was in a way natural as an association between student-parent opinions, given the information and the experience of the youngest respondents (Chart no. 1).

Similarity good educational entity – good school head, and its hierarchy according to the opinion of pupils and students, correlated with that of parents

Chart no. 1

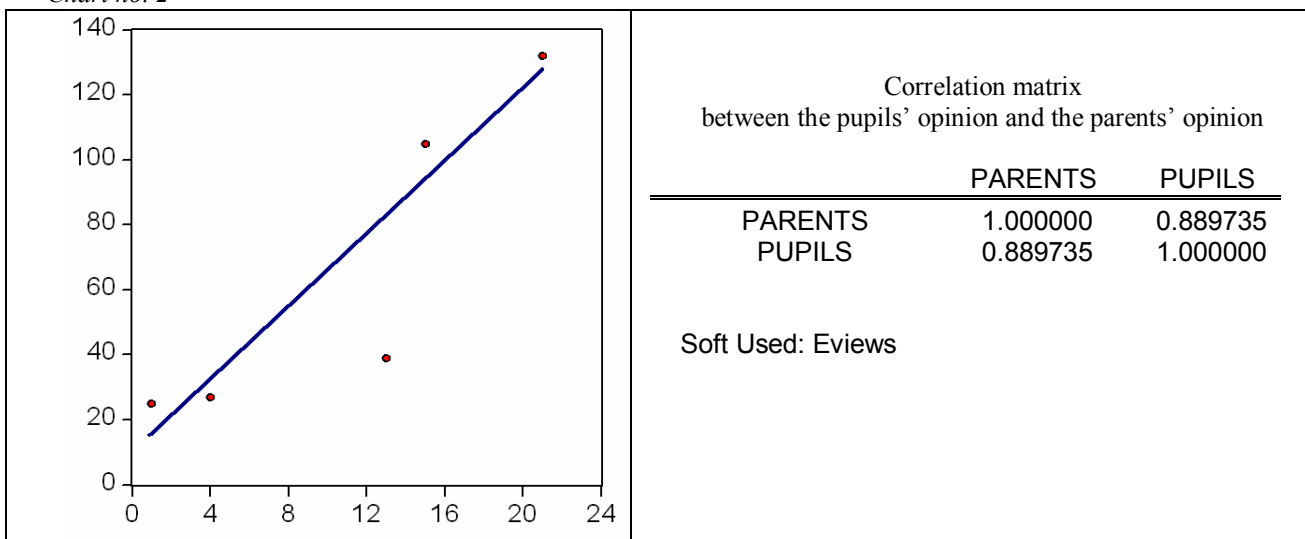


The students' opinion is strongly influenced by the parents' opinion of the role and importance of the manager as far as the quality of the innovative process in the educational entity is concerned, which can be seen both from the correlogram and the high value of R^2 (the coefficient of determination, or R squared). Separately, the

students' opinion is no longer correlated, even at medium intensity, with that of their parents (R below 0.2, signifying no correlation, as was natural). Further on, only the pupils' /students' sample and their opinions was pursued and analysed.

The strong correlation holding between the students' and the parents' opinion of the role of manager competence in conceptualizing the quality of the innovative educational process

Chart no. 2



The teachers' opinion is independent in relation to the opinion of the pupils/students and the parents, and it is distinguished by its emphasis on two aspects, situated at near parity: tradition (revealed by competent teachers and

the pupils with results that confirm their skills), but also a teacher manager able to obtain information, material, human and financial resources apt to provide competitive innovative educational processes. The table summary of

the data from the samples combined from the questions about manager the skills of the teacher manager in

innovative educational processes, is presented below:

Qualitative and quantitative elements of the manager teacher's statistical profile

Table no. 2.

No.	Dimensions quantified and described in the statistical profile of management (positive and negative)	Positive values	Negative values
1	Similarity good school–good manager (E_{pupils})	17,09	- 82,91
2	Similarity good school–good manager ($E_{parents}$)	18,18	- 81,82
3	Similarity good school–good manager ($E_{teachers}$)	50,0	- 50,0
4	Decisions and opinions of the members of the student council (E_{pupils})	12,60	-13,92
5	Important decisions communicated directly ($E_{parents}$)	13,64	- 68,18
6	Sense of safety, order and discipline ($E_{pupils/students}$)	34,18	-52,53
7	Choosing traditional entity ($E_{parents}$)	4,55	- 40,91
8	Integrated relationships between manager teacher, teachers, students, parents ($E_{teachers}$)	68,75	- 31,25
9	Managerial training of the school head and performance of school ($E_{teachers}$)	43,75	-56,25
10	Manager encourages the others' initiatives ($E_{teachers}$)	50,0	- 50,0

A profile of the manager, drawn as a result of the reunited opinions of the sample of students/pupils, that of the parents, and that of the teachers is finally summarized along the following 10 dimensions:

1. similarity good school – good manager = 27 out of 158 points (17.09%) – pupils' opinion (- 82.91% – lack of similarity) highlights a completely negative current dominant of the teacher manager's skills in the education system tested;

2. similarity good school – good manager = 4 out of 22 points (18.18%) – parents' opinion (- 81.82% – lack of similarity) expresses the same issue, but according to the parents' opinion;

3. similarity good school – good manager = 8 out of 16 points (50.0%) – teachers' opinion (- 50.0% – lack of similarity) shows a parity situation where finally the manager of the innovative educational process is ranged first in relation to tradition;

4. management decisions in the educational entity are in keeping with the opinion of the student council members = 20 of 158 points (12.60%) – students' opinion (-13.92% – disregard in making decisions) highlights the existing difficulties of communication and consistent integration into the internal environment of the educational entity, when decisions are primarily aimed at management behaviour qualities.

5. decisions that are important to the educational process are communicated directly = 3 out of 22 points (13.64%) – parents' opinion (- 68.18% – at the most during school in meetings, or none whatsoever) highlights the lack of trust in the actors of the educational process, identifying the need for adequate training of the skills regarding experience and behaviour;

6. the sense of safety, order and discipline, together with there being no conflicts in the educational entity = 54 out of 158 points (34.18%) – students' opinion (-52.53% – total absence of the above); all types of managerial skills

are involved here, requiring a more careful and thorough training, starting from skills, and up to knowledge, from experience, to behaviour;

7. choosing the educational entity is done based on it having a tradition = 1 out of 22 points (4.55%) – parents' opinion, and 9 out of 22 points (- 40.91% because it is close to home (a factor external to the managerial and educational process); analogously, here, too, all the types of managerial skills are involved, requiring more careful training, from the training of the skills, to that of knowledge, experience, and behaviour;

8. the importance of integrated relationships teacher – teacher manager – pupils / students – parents = 11 out of 16 points (68.75%) – teachers' opinion (- 31.25% – lack of importance of that relationship); this training dimension emphasizes the need for a new vision and perspective, for greater flexibility of thinking, sociability, principledness, courtesy, proper dress and morality, generating tradition in addition to increasingly diverse professional and managerial knowledge at the level of the teacher manager;

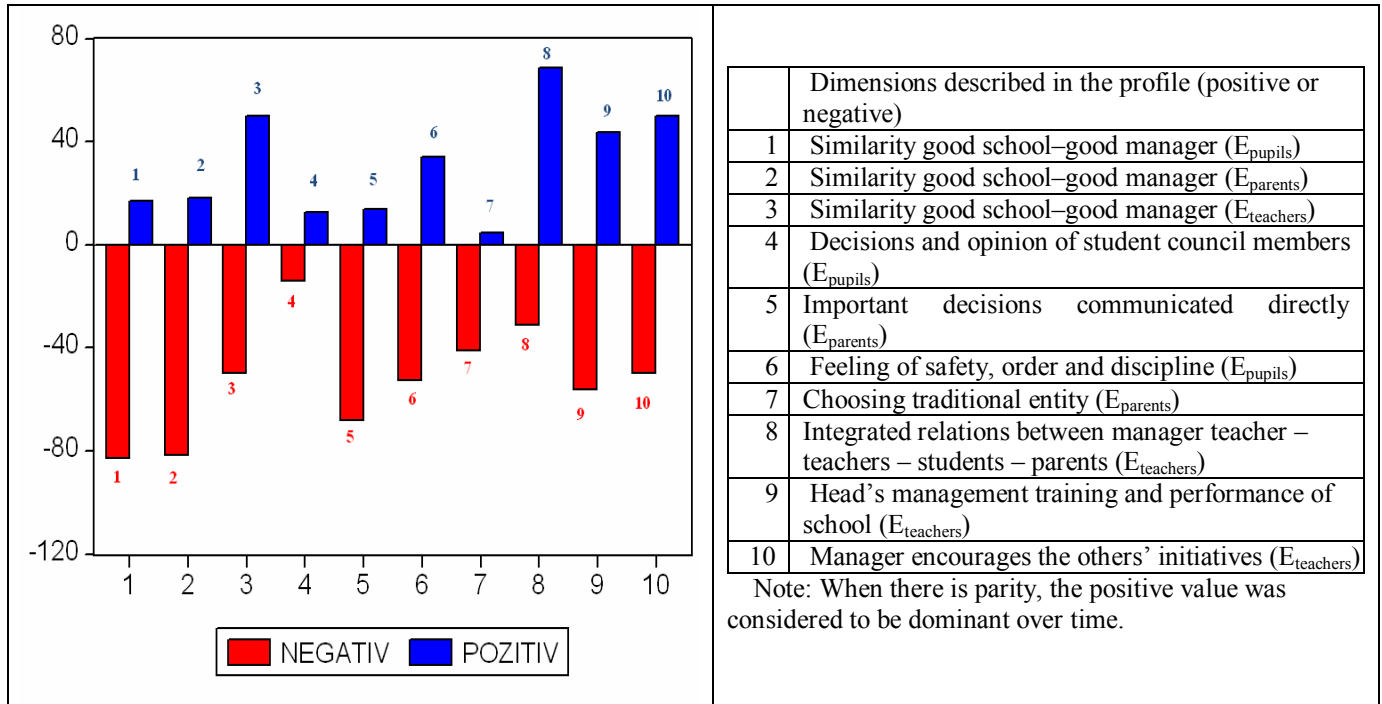
9. the school head's management training has positively influenced the management team's performance and that of the educational entity = 7 out of 16 (43.75%) – teachers' opinion (-56.25% – no influence); the result of the statistical measuring shows that more work is needed with a view to training the manager;

10. the manager and the management team encourage the initiatives of the teachers, students and parents = 8 points out of 16 (50%) – teachers' opinion (50% – doesn't encourage the initiative of the others); some of the management skills and competence concerning responsiveness is already made, with a favorable impact on the innovative educational process.

A combined image of the two aspects, which are both positive and negative simultaneously, in the combined profile of the three samples, is shown in Chart no. 3.

Statistical profile of the manager as a result of combined favourable and unfavourable opinions of the samples of students/pupils, parents and teachers

Chart no. 3



Software used: Eviews

The same statistical profile can be adequately represented by means of the polar or radial chart:

expressiveness and visibility are more pronounced at an analytical level or per size:

Radial statistical profile focusing on the positive and negative aspects of teacher manager

Chart no. 4.

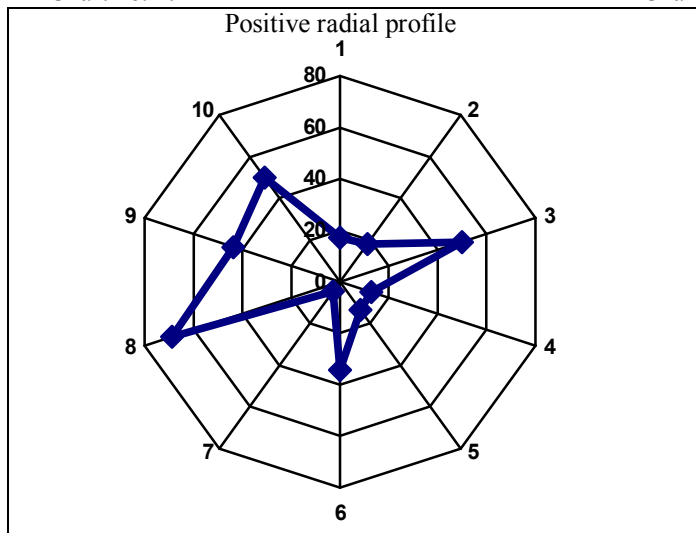
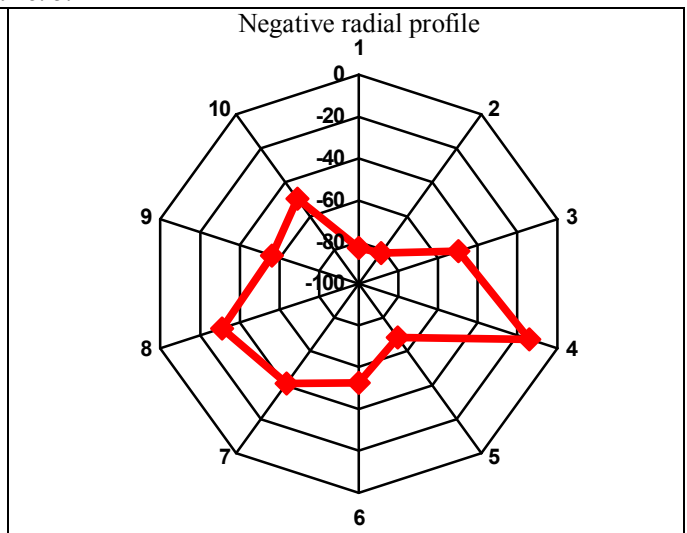


Chart no. 5.



The dimensions transfigured in axes 3, 8 and 10 of the positive radial profile are the main generators of competitive managerial skills, with some potentialities in dimension 6, while the negative radial profile, which must be interpreted conversely, emphasizes that the most sensitive values are given by axes 1, 2, 5 and 9, with a significant impact in shaping the same so necessary

competences / skills of the school head and his/her management team in today's Romanian education unit or entity.

The dimensions that have to be added to the statistical profile in the finding experiment to the component representing the opinions of the teachers are also those concerning the simultaneous access to all three main

classes of skills in current managerial decision-making skills (25% favourable and 75% unfavourable), and also those detailed per classes of managerial skills: a) self-improvement skills (71.8% favorable and – 29.2% unfavorable); b) interpersonal and human skills (66.7% – 33.3% favorable and unfavorable); c) technical skills (37.5% favorable and – 62.5% unfavorable).

4. SYNTHETIC QUALITATIVE AND GENERAL RESULTS

Skills training is targeted to ensuring a set of *qualities*, with a greater degree of appropriacy for the actuality of education processes (intelligence, memory, sense of observation, vision and insight, flexibility of thinking, positive character traits, strongly balanced temperament), of some *knowledge* of practical applicability and quick access from the manager teacher (professional, managerial, economic, psychological, legal, political and ideological), and also by forming a decision-making component based on the *experience* in the educational process (of the managerial, professional, in the profile of the unit, political type) and a *behaviour* that is subject to the same innovative educational process (sociability, principledness, responsiveness, courtesy, proper dress, morality), not omitting the factors that can ensure *good health* to the teacher manager, who will be exposed to great efforts .

Following the analyses conducted using the statistical profile resulting from the three opinion samples, some of the features can be shaped of the process of training management skills in the innovative educational entities with a major impact in the development of this type of professional training particularly important for the innovative educational system.

In a first structural approach to the skills and capabilities that need to be possessed by the future managers in modern educational processes, human skills (especially the native ones) remain essential, while the importance of conceptual and technical skills significantly increases.

The contemporary educational entities in the national system (except for the elite ones, partly resulting from the shaping of a genuine morphic field of performance field, gathered by almost century-old traditions, inherited and maintained by performance management) confirms that the training of technical skills remains the main stumbling block of contemporary managerial decision-making; as a rule, these training efforts are accessed on average by only 4 managers teachers out of 10 (according to the opinions they expressed), usually limited to an effort of self-improvement and not going deeply into the area of advanced management studies, able to generate methodological certainties in the decision-making act.

Of course, there exist training deficiencies in shaping conceptual skills generating, by negative experiences, managerial behaviours suffering from ethical myopia, and even immorality in the framework of educational processes

The advantages of the statistical method of the profiles applied statically can amplify through dynamic researches, which enable confrontation of the real competences of successive managers and their management teams, according to the information taken from the three key actors of contemporary innovative educational process: teachers, students and parents.

exclusively aimed at performance, behaviours reported as early as the last century (Longenecker, 1985).

As a reality assessed in a multidisciplinary manner, through the method of the improved statistical profile resulted from the extended analysis of the teacher manager, it points out that, for example, only one in three school principals turns to account competitively his/her interpersonal skills, and only 3 in 10 self-improvement skills are used (virtually, in the combined statistical profile, only one in four managers accesses all three types of skills.

Certainly, at the back of these data it lies hidden the flimsiness of training management skills with all teachers, as the finding experiment emphasized.

I. Training the skills of the manager teacher must draw him/her ever closer to the concept of leadership, and the kind of leadership characteristic of innovative educational processes.

A teacher who possesses managerial skills and is committed, together with his/her management team, to create a new vision, with a unique personal motivation, and connects his/her inner strength in generalizing innovation, can be made into a real leader of the educational process.

As innovative educational leadership nearly always involves the initiation and propagation of change, this makes it the most suitable capitalize in innovative learning processes, virtually becoming the major target of successful training experiments.

Training focuses mainly on the elected leader's inner strength, which quietly leads an educational organization, which it also develops.

Vision is gradually turning him/her into the main spokesman for the management team, who can substitute the educational entity in moments of decision, finding the appropriate formulas to motivate the organization, to create a joint development, with emphasis on the managerial skills harnessed to the practice of change.

Innovative educational leadership is defined as a sui generis creative activity, and therefore must identify itself with innovative educational processes.

A leader is formed as a supporter of encouraging the initiative and creativity of the people in his/her organization, generating their own ideas about the technical processes of education, and also about the external environment, which can validate or invalidate the educational products, or about the culture and internal processes in the educational organization.

Innovative educational leadership is also, by its very nature, an interpersonal activity. Interpersonal skills are crucial in forming a genuine leader.

Effective educational leaders make use of their time in the spirit of balance, or Paretian optimum, of the 20/80 type. An innovative educational leader decides in no more than 20% of his/her time, but after having communicated,

for at least 80% of the time, with all the actors in the processes (teachers, students, parents), as well as with the beneficiaries of the educational process itself (companies, institutions, public opinion, etc.)

To do that, a teacher manager should be trained in the spirit of the organization, being able to effectively delegate responsibilities; moreover, they will not allow administrative tasks to consume time that would be better used in face-to-face discussions.

Innovative educational leadership becomes more effective when the people who are network nodes or professional reference points, relevant in the respective educational entity, accept and genuinely appreciate the innovative decisions. The leader is formed and acquires experience proceeding from building an initial consensus, and is gradually developing the courage needed to face the various currents of opinion, whenever this type of response is required. *The problem of the teacher manager endowed with leadership skills is solved, and a leader's training practically is completed when he/she has managed to form the reflex of correctly choosing the time and space for the right decision in order to achieve maximum impact in developing a leadership career.* Most successful leaders, who state that were formed gradually, and learned to be in the right place at the right time to be able to take advantage of the particular configuration of their leadership skills within the educational process.

Many of them attribute their success to luck, out of excessive modesty, but in reality they have completed a process of training management skills that has developed leadership skills, which actually defines a true pyramid of leadership, bringing together *inner skills* by bringing inside (which provide the basis for leadership, the unique and perpetually innovative nature of the leader), *leadership skills* (which sets apart the leaders of innovative educational processes from common managers by training knowledge, in particular professional, managerial, psychological, economic and legal, as well as by the practical demonstration of the qualities needed to conduct

educational entities focusing on vision and perspective, flexibility of thinking, intelligence, memory, sense of observation, balanced temperament) and *professional skills* (experience and continuous learning).

II. Another trend needed in the process of training managers on a long-term basis, or innovative educational leaders, seems to be no longer allowing the practical existence of any way of training a teacher manager lacking the completeness of skills, i.e. failing to access all managerial skills, in both the theoretical and experimental stage, as well as in the actual innovative educational processes subsequent to the training.

III. In the interpersonal relationship manager–teachers it is essential to stimulate, by the teacher manager in question, i.e. by the innovative educational leader, the shaping of a critical attitude of the teachers (the finding experiment identified only a 8.2% share of teachers with a critical attitude with respect to management decisions) and the initiatives of the most important actors of the educational process (the analysis of the respondents in the sample answers of the statistical profile identified only 50% favourable responses).

IV. The process of training the teachers managers should be harmoniously included within the broader national process, aiming at actually training as many innovative educational leaders as possible.

5. A FINAL REMARK

An integrated innovational educational system can be set up through multidisciplinary methods, applied based on the essential elements of the innovative educational process; the gist of such an example is described in the figure below; it holds both a conclusive and integrative role, according to the results obtained by the method of the statistical profile, generalized and adapted to educational management.

Structure of an innovative* national educational system meant to train competitive managers

Figure 1

ACTIVE ENTITIES	EDUCATIONAL SUPPLY Producers of intermediate demand Consumers of educational services	RESEARCH AND EDUCATION Training teachers managers Innovative competences / skills
<i>Kindergartens</i> <i>Schools</i> <i>High schools</i> <i>Universities</i> <i>Research institutes</i> <i>Cultural institutions</i> <i>Health institutions</i> <i>Other units providing educational services</i>	LIMITS, INFLUENCES AND AGENCIES IN PROCESS Elementary classroom management as lower limit; Knowledge and technologies of innovative impact; Psychological and sociological impact on the dynamics of innovation Innovative educational leadership as upper limit INFRASTRUCTURE Banking capital and investment attracted; Intellectual property; Innovations and innovative educational support Educational norms and standards for innovation	1. <i>Qualities</i> (vision and insight, flexibility of thinking, intelligence, memory, sense of observation, positive character traits, balanced temperament, etc.) 2. <i>Knowledge</i> (professional, legal, managerial, psychological, economic, political ideological). 3. <i>Experience</i> (professional, managerial, experience in the educational <i>profile</i> of the entity, in politics, etc.). 4. <i>Behaviour</i> (sociability, politeness, principledness, responsiveness, morality proper dress, etc.); 5. <i>Health</i> (good).

REFERENCES

- [1] Chesbrough, H., (2003). *Open Innovation: The new imperative for creating and profiting from technology*, Harvard Business School Press: Harvard, MA, pp.29-39 and 226
- [2] Chesbrough, H., Vanhaverbeke, W. & West, J. *Open Innovation: Researching a New Paradigm*, (2006). Oxford University Press: Oxford, pp. 220-240.
- [3] Daft, R. L. & Weick K. E. (1984). *Toward a Model of Organizations as Interpretation Systems*, Academy of Management Review, 9 (2), p. 284-295.
- [4] De Jong, J. P.J., Vanhaverbeke, W., Kalvet, T. & Chesbrough, H., (2008). *Policies for Open Innovation: Theory, Framework and Cases*, Research Project funded by Vision ERA – Net, Helsinki, Finland.
- [5] Edquist, C. (1997). *Systems of Innovation: Technologies, Institutions and Organizations*, Pinter Publishers: London, Routledge, pp. 1- 22.
- [6] Gwartney, J.D. and Stroup, R. L. *What Everyone Should Know About Economics and Prosperity*, Published by The Fraser Institute in co-operation with the James Madison Institute, 1993. pp. 5- 125
- [7] Longenecker, G.J. (1985). *Management priorities and management ethics*, Journal of Business Ethics. 4 (1), pp. 65 – 70.
- [8] Lundvall, B., (1992). *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning*, Pinter Publishers: London.
- [9] Odobleja, Ș. (1984). *Introducere în logica rezonanței*, Craiova, Ed. Scrisul românesc.
- [10] O'Doherty D. & Arnold, K., (2003). *Understanding Innovation: The Need for a Systemic Approach*, The IPTS Report, 71 Sevilla, IPTS, pp. 29-36.
- [11] Rothwell, R. and Zegveld, W. (1982). *Industrial Innovation and Public Policy*, preparing for the 1980s and the 1990s. London: Frances Pinter.
- [12] Rothwell, R., Zegveld, W. (1985). *Reindustrialization and Technology*, UK Harlow: Longman Group Ltd., P.136.
- [13] Rothwell, R. (2002). *Managing Innovation and Change*, SAGE Publication Ltd., London: The Open University Press. 2nd Ed., p.178
- [14] Săvoiu, G., Jaško, O., Dulanović, Z., Čudanov, M., Craciuneanu, V., (2008). *The value of general methods, quantitative techniques and management models in professionalizing management*, Management, no. 13 (49-50) 49-50/2008, Belgrade, pag. 5-12.
- [15] Săvoiu, G., Jaško, O., Čudanov, M., (2009). *Diversity of scientific quantitative, statistical, and social methods, techniques and management models in management system*, Management (Scyndece index), no 52, pp.5 -15
- [16] Săvoiu, G., Manea, C., Simoni, S., (2008). *The Demographic, Sociological and Geographical Profile. The Role of the Profile Method in Contemporary Management*, The 14th International Conference Nicolae Bălcescu Land Forces Academy Sibiu, 27-29.1. 2008, vol III, pp. 185-199.