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## **THE IMPACT OF HUMAN RESOURCES MANAGEMENT ON INNOVATION CAPACITY**

### **Abstract:**

Innovation is one of the key components for the survival of the organization in a competitive environment. While doing this research I started by studying the literature on human resources management and the ways in which management practices in the field (evaluating human resources, recognition and rewarding, professional development, team management) have an influence on innovation among teachers from the pre - university school system. The hypothesis of the research is represented by the causality relationship between human resources management and innovation. A supportive human resources management can be perceived as a beneficial method of sustaining innovative behaviour.

### **Keywords:**

Human resources management, Innovation, Managerial practice, Innovation management, Sharing knowledge

**JEL Classification:** M12, M53, I29

## 1. Introduction

The concept of innovation synthetically defines the introduction of something new. The actions by which man can achieve this purpose are part of his past and present life. The evolution of mankind was determined by finding and adopting the "new". The importance and the number of these activities increased with the development of the company. Changes in the economy and in society, due to technical progress, increased competition and the development of information technologies, explain why the interest for innovation has known an extraordinary growth in the last decades. This is considered a way in which the sustainable growth of the organization and society in general can be achieved. The innovation that takes place in society is embodied in ideas, concepts, strategies applicable in areas such as education, health, community development. But its magnitude is especially reflected in the economic field, where we can talk about innovation of both products and processes. But innovation does not only materialize in tangible things, but also in intangible ones, in inventions and know-how, in management models, organizational and managerial models of an organization oriented towards maintaining the competitive advantage.

Innovation is undoubtedly of crucial importance for organizations in terms of survival.<sup>1</sup>

The understanding the concept of innovation is approached from different perspectives by researchers. Thus, the level of novelty, the types of innovation, the forms of innovation, the dimensions of innovation, the determinants of innovation are some aspects that talk about the complex nature of this term.

Different academic approaches can be identified in the specialized literature about innovation. Thus, Schumpeter considered innovation in 1934 as *the commercial or industrial application of something new – a new product, process or method of production; a new market or source of supply; a new form of commercial, business or financial organization*. Other researchers distinguish between innovation and invention. The invention is defined as *an idea, sketch or model for a new or improved device, product or process*.<sup>2</sup>

At the managerial level, the success in innovation depends on the strategies promoted, on the allocated budget, on the involvement in projects and the way they are managed, on the structures created and not lastly on the emphasis on people. *High-performing innovation organizations have learned how to lead, motivate and reward employees*.<sup>3</sup>

The literature on the relationship between HRM practices and innovation performances is wide. Apart from the relevant works in the field, there are many others that have not been published in HRM journals. The research suggests the existence of multiple mechanisms through which HRM practices influence the relations between human capital and innovation.

The European policies in the field are also added to the specialized literature, especially the Europe 2020 Strategy, which identifies human resources among the enhancers of innovation, as the main drivers of performance and innovation.

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<sup>1</sup>Dess, G.G, Picken, J. C. (2000). Changing roles: Leadership in the 21 st century. *Organizational Dynamics*, 29(4): 18-34

<sup>2</sup>Freeman, C. (1982). *The economics of industrial innovation*. London: Pinter, p.7

<sup>3</sup>Gupta, A.K., Singhal, A. (1993). *Managing Human Resources for Innovation and Creativity*, May-June, <http://utminers.utep.edu/asinghal/reports>

In an increasingly competitive environment where we face a diversification of requirements, but also with changes in the demographic profile, with the mobility of the workforce, the role of human resources management is increasingly important. The current conditions and the multitude of determinants request from the human resources management a reconfiguration of purpose and role.

Theoreticians of human resources management have provided through the definitions they've formulated, multiple perspectives on understanding the concept. Of these, we specify:

- *Human resources management is the science and art of preparing human resources, of forming personalities, according to some ends accepted by the individual and by the society.*<sup>1</sup>
- *Human resources management consists of policies, practices and systems that influence employee behavior, attitudes and performance.*<sup>2</sup>
- *Human resources management is that organizational activity that allows the most efficient use of people (employees) to achieve organizational, group and individual goals.*<sup>3</sup>
- *Human resources management is the "backbone" of a modern company.*<sup>4</sup>

We find that there is no universally accepted definition, but their analysis helps us to unravel some of the essential aspects of human resources management:

1. Human resource management is focused on people and human relations paying maximum attention to both white collars and blue collars and the types of relationships that arise between them, regardless of the hierarchical level.

2. The human resources management ensures the consistency between the general strategy and the human resources strategy, so it has a *strategic approach*.

3. Human resources management is an essential and permanent dimension of management being a basic component of the managerial process implemented by all managers and interconnected with the other functional departments of the organization.

4. Human resources management is a function of human resources including a number of human management activities: *determining the needs of jobs, recruiting, selecting, appointing, evaluating employees, employee benefits, direct rewards, employee protection, organizational safety, employee development and use, working relationships with employees.*<sup>5</sup>

5. The management of human resources is based on the *assumed commitment*, by enhancing the psychological connection that is established between the employee and the organization.

6. Human resources management adopts a unitary approach in an attempt to harmonize the interests of employees and employers.<sup>6</sup>

Human resources management practices are no exception to this approach. They are subject to constant innovation, but the interest in this research is how they influence innovation among human capital.

<sup>1</sup> Jinga, I. (2003). *Managementul învățământului*. București: ASE, p. 18.

<sup>2</sup> Noe, R.A., Hollenbeck, J.R., Gerhart, B., Wright, P.M. (2007). *Fundamentals of Human Resource Management*. New York: McGraw-Hill/Irwin, p. 3.

<sup>3</sup> Tripon, C., Dodu, M., Tripon, C., Dodu, M. (2019). *Managementul resurselor umane*. <http://www.apubb.ro/wp-content/uploads/2011/02/Suport-Curs-MRU-Zi-2012-2013.pdf>. [Interactiv], p. 7.

<sup>4</sup> Pânișoară, G., Pânișoară, I. O. (2005). *Managementul resurselor umane: ghid practic*. București: Polirom, p. 1

<sup>5</sup> Myers, D.W. (1992). *Human Resources Management Principles and Practice*. Chicago: Commerce Clearing House, Inc, pp. 34 - 37.

<sup>6</sup> Frățilă, C., Duică, M. C. (2014). *Managementul resurselor umane: Concepte. Practici. Tendințe*. Târgoviște: Bibliotheca, p. 23

The notion of "modern practices in the field of human resources" talks about high levels of decision-making, of the existence of horizontal and vertical communication channels, of advanced reward systems correlated with several performance indicators, practices for achieving high levels of organization and performance.<sup>1</sup> In this context, Guthrie states that a common theme in this literature is that which emphasizes the use of a management practice system provides employees with the skills, information, motivation and freedom of decision, the result being labor force which is a source of competitive advantage.<sup>2</sup>

Current HRM practices<sup>3</sup> taken into account suppose:

- delegating responsibility and stimulating teamwork;
- providing incentives such as profit sharing, individual incentives and incentives for professional development;
- internal communication practices encouraged through sharing best practice or job rotation;
- training of employees, both internal and external;
- recruitment and maintenance of human resources through internal promotion policies.

Among the practices mentioned above, the first three can be considered modern, while the last two are traditional human resources practices.

The requirements for sustainable development, as well as the challenges of global competition, require excellence in innovation, and an efficient human resources management can stimulate and support this European priority.

## 2. Innovation in secondary education

Innovation occurs in education, as in other fields. Huberman published in 1973 the definition, accepted as a benchmark for innovation in education: *an innovation is a measurable, deliberate, sustainable improvement, unlikely to occur frequently.*

Huberman himself links innovation to the resources available to the educational institution: *innovation represents selection, creative organization and use of human and material resources according to prohibited methods, allowing reaching a higher level in achieving goals.*<sup>4</sup>

Bécharde and Pelletier see innovation in education as *a deliberate activity, aimed at introducing a novelty in a given context.* For them, innovation is pedagogical because *it aims to substantially improve pupils / students' preparation through a situation of interaction and interactivity.*<sup>5</sup>

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<sup>1</sup> Ichniowski, C., Shaw, K., Prennushi, G. (1997). The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines. *American Economic Review*, 87(3): 291-313.

Zenger, T., Hesterly, W. S. (1997). The Disaggregation of Corporations: Selective Intervention, High-Powered Incentives and Molecular Units. *Organization Science*, 8(3): 209-222.

Colombo, M. G., Delmastro, M. (2008). *The Economics of Organizational Design: Theoretical Insights and Empirical Evidence*. Hampshire: Palgrave Macmillan, p. 89

<sup>2</sup> Guthrie, J. P. (2001). High-Involvement Work Practices, Turnover, and Productivity: Evidence from New Zealand. *Academy of Management Journal*, 44(1): 180-190.

<sup>3</sup> Foss, N. J., Laursen, K., Pedersen, T. (2011). *Linking Customer Interaction and Innovation: The Mediating Role of New Organizational Practices* <https://research.cbs.dk/en/publications/linking-customer-interaction-and-innovation-the-mediating-role-of>

<sup>4</sup> Huherman, A., M, apud \*\*\* Rapport annuel sur l'état et les besoins de l'éducation, 2004–2005. Le dialogue entre la recherche et la pratique en éducation: une clé pour la réussite, [www.cse.gouv.qc.ca/fichiers/documents/publications/CEBE/50-0182-01.pdf](http://www.cse.gouv.qc.ca/fichiers/documents/publications/CEBE/50-0182-01.pdf).

<sup>5</sup> Bécharde, J.P., Pelletier, P. (2002). Dynamique des innovations pédagogiques en enseignement supérieur: a la recherche d' un cadre théorique. Cahier de recherche Observatoire des innovations pédagogiques en gestion, p. 9

In other opinions, educational innovation acts in its structure and organization, at the level of the content and the educational environment. Others differentiate between innovations that introduce technical changes, innovations of a conceptual nature, and innovations that generate changes in interpersonal relationships.

Innovation in the structure and organization of education links the idea of decentralization. A first step towards decentralization was achieved by adopting the new law on education. Organization of distance learning in academia, of private education, the development of educational programs addressed to target groups, diversification of training providers, accessing funding projects were favoured by the decentralization of the education system.

The transfer of responsibility stimulates innovation allowing a change in the way we work, direct participation in decision making, collaboration with various educational actors (parents' associations, economic agents, NGOs, other educational institutions, local authorities, church, police etc.). Addressing a problem in such a decentralized framework gives the possibility of expressing new points of view, looking at different perspectives, negotiating, and accumulating knowledge. In order to support innovation, the educational actors will be present, as the case may be, in defining the problem or situation to be improved, in developing new knowledge or new elements, in identifying own strategies to favour the desired change.

However, the culture of educational organizations remains one with a pronounced bureaucratic character, an aspect that places its mark on their ability to innovate.

Innovation in the content taught in school was conducted by reviewing the curricula, by rescheduling the contents for a longer period of time as a result of increasing the compulsory schooling time, by introducing the school's curriculum and the new information technologies tools. Innovation at this level is needed for several reasons: on the one hand, we are talking about a very large amount of information accumulated at the company level and its perishability. In order to support innovation in this field, a careful selection of the knowledge to be transmitted to the students and the shift of focus from their transmitting skills to building skills is necessary.

Innovation in the educational environment concerns the relationships of collaboration, cooperation, trust, support that exists between teachers - students, teachers - management structures. These relationships are in positive correlation with the type of organizational culture and the managerial style practiced in the educational institution. Managerial practices can support or inhibit the expression of innovation in the educational environment.

### **3. Relations between human resource management and innovation in secondary education**

#### **a. The relevance of the study**

Human resources have been called the *key ingredient of organizational success and failure*<sup>1</sup>, determining the success or failure including in the innovation performance of the school organization.

It is important to understand what are the human resources management (HRM) practices within the school organization that can produce the high levels of performance in teaching innovation, as well as the innovation / inhibiting factors of these practices.

#### **b. Research methodology**

The research objectives aimed:

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<sup>1</sup> Baron, J. N., Kreps, D. M. (1999). Strategic human resources. Framework for general managers. New York: Wiley and sons, p.73

- To identify strengths and points that need improvement in human resources management by correlating with the potential to support innovation in education;
- To identify supportive managerial practices for teaching innovation;
- To establish the impact that the management of human resources has on the innovation in the educational institution, through the practices addressed.

**The research hypotheses tested** are presented below:

**Hypothesis 1.** There are constraints on the effectiveness of some human resources management practices in secondary education, in order to enhance the capacity of human capital innovation.

**Hypothesis 2.** There is a determining relation between human resources management and innovation performance

#### **The research tool**

The questionnaire has a fixed structure and is divided into three sections by topic coverage areas of the main elements of interest, following the assumptions and objectives of research being made up of questions with predefined simple or multiple answers, assuming only the choice by ticking the response on the five-point Likert attitude scale, not involving the identification of the respondent and respecting the confidentiality rule. The requirements are stated clearly, unequivocally and are constructed so as to require a reasonable time to fill in the questionnaire (15 minutes).

#### **The sample**

The sample was comprised of 450 teachers from secondary education units, out of which 112 persons representing the management staff and 338 - the execution teaching staff.

The limits of scientific accuracy are given by the objective conditions of the organization and application of the questionnaire (material resources, time, availability of respondents, etc.), the rational sampling technique used is voluntary, and the significance threshold is 95%, with a 5% minimum error accepted.

#### **c. Research results**

For a correct reference to HRM impact on the innovative capacity of the teachers, we started from the identification in order to achieve the further aspects of essence and force represented by the strengths highlighted by the SWOT analysis (table 1.). For the domain subject to the analysis, five dominant components were detached by prioritization: concern for research and innovation of human resources (346 people), managers competence (320 people), encouraging lifelong learning - linked to (self-) evaluation of subordinate staff (290 people) increase participation in decision making, encouraging and fostering innovation (238 people) climate and organizational culture support (211 people).

HRM relies on the openness of teachers to everything new, through participation in research, training and managers' competence in managing these resources as the main vectors in achieving innovation in schools. Managers' skills make possible the correct implementation of the legislative specifications, removing confusion and promoting transparency. Starting from the occupational standard for the human resources manager, which involves coordinating all human resources activities, policies / strategies developed in the field, monitoring labour relations and personnel costs, representing human resources, we consider of the utmost importance for our secondary education, identifying as a strong point the managerial skills, the reflection of the training, skills and involvement of school principals.

**Table 1. Strengths identified in the HRM relationship - teaching innovation**

Strengths	Answers		Percent age of cases
	Number	Percentage	
Managerial skills	320	11.6%	92.5%
The correct implementation of legislative specifications regarding human resources in secondary education	190	6.9%	54.9%
Encourage continuous training - correlated with (self) evaluation of subordinate staff.	290	10.5%	83.8%
Teachers with an interest in research and teaching innovation	346	12.6%	100.0%
Stimulating participation in decision making, encouraging and supporting innovations.	238	8.7%	68.8%
The relationship of respect, trust and appreciation with the school principal	164	6.0%	47.4%
Correct evaluation of individual professional performance	132	4.8%	38.2%
Equitable distribution and in accordance with national and local criteria of material and moral incentives established by law	111	4.0%	32.1%
Developing an internal and external communication and information system quickly, efficiently and transparently.	195	7.1%	56.4%
Climate and supportive organizational culture	211	7.7%	61.0%
Professional ethics. Balanced and democratic interpersonal relations	172	6.3%	49.7%
Involvement of the educational unit in the process of selecting and employing the teaching staff	96	3.5%	27.7%
Long-term job security	88	3.2%	25.4%
Providing general and specific counselling for all subordinate staff.	146	5.3%	42.2%
Other	50	1.8%	14.5%
<b>Total</b>	<b>2749</b>	<b>100.0%</b>	<b>794.5%</b>

Source: personal contribution

The complete picture of this analysis also includes the areas / aspects of intervention needed to improve and reform the HRM, brought to the foreground by the identified weaknesses (table 2). Thus, for the 409 respondents, the essential problem of human resources is the initial training of the teachers. Authentic and effective collaboration between pre-university and university education is absolutely necessary and profitable for both parties.

Another aspect that should be improved is the way of recruiting and selecting staff in education. (92.7%). The large number of tasks included in the job description, to which are added other responsibilities and current and redundant requests lead to staff demotivation. The system of evaluation and motivation of the staff (85.8%) complements the image conferred by the aspect

previously mentioned regarding the professional satisfaction. The low school performance represents also a lack of motivation, identified as weakness by 74.1% of the questioned teachers. At the system level there is a significant reduction in the desire of students to learn beyond what the system requires a rethinking and development of real innovation in the content, but also in the educational environment. For most of the respondents (68.5%) the problems raised are related to the lack of a human resources management strategy, at the level of the education system.

**Table 2. Points that need improvement identified in the HRM relation - teaching innovation**

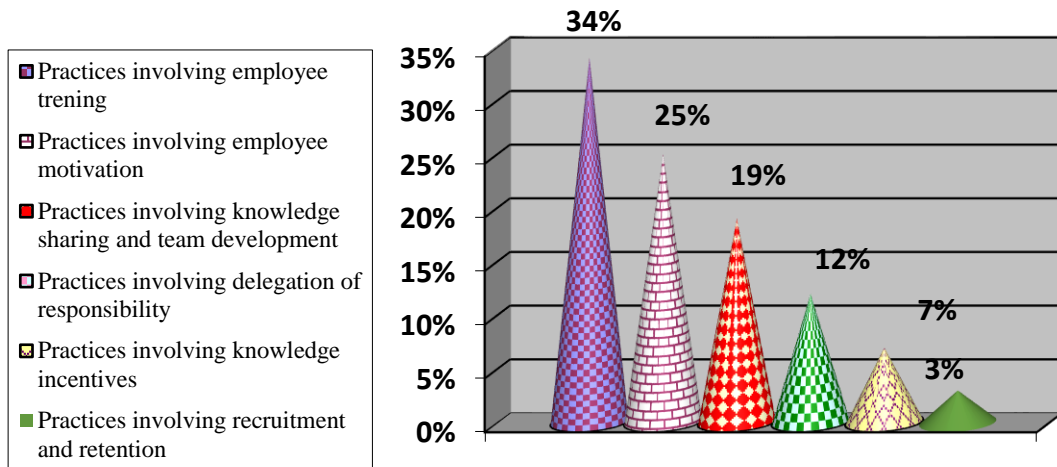
Points that need improvement	Answers		Percent age of cases
	Number	Percent age	
Teachers' Initial training	409	13.4%	100.0%
Poor academic performance (low percentage of graduation, high school drop) due to students' lack of motivation	303	9.9%	74.1%
Lack of a strategy on human resources management at the educational system level	280	9.2%	68.5%
Methods of recruitment and selection of educational staff	379	12.4%	92.7%
Lack of coherent programs for integrating newcomers	71	2.3%	17.4%
Deficiencies in training managers in the field of human resources	84	2.7%	20.5%
Large number of unskilled teachers (substitutes)	217	7.1%	53.1%
Continuous training of teachers	94	3.1%	23.0%
Personnel evaluation and motivation system	351	11.5%	85.8%
The fluctuation of teachers, especially in rural areas	231	7.6%	56.5%
The fairness of the salary in relation to the effort made in the teaching activity	229	7.5%	56.0%
Image deficit of the teaching profession	48	1.6%	11.7%
The discrepancy between the internal evaluation of the teachers (the majority obtaining the score Very good) and the results of the students in the external evaluations	58	1.9%	14.2%
Political and legislative instability	200	6.5%	48.9%
Other	103	3.4%	25.2%
<b>Total</b>	<b>3057</b>	<b>100.0%</b>	<b>747.4%</b>

Source: personal contribution

From the prioritization of the incentive managerial practices for the didactic innovation, it is found that the practitioners place in the first position the practices that involve the training and the professional development, and on the last position they place the practices of recruitment and maintenance of the personnel (figure 1).



**Figure 1. Prioritizing managerial practices according to the potential to stimulate innovation**



Source: personal contribution

In the context of the general management of the school organization, HRM is considered to be very important for increasing the capacity of innovation at the level of the educational institution by 91.1% of the respondents, a percentage of 8.9 considering it important (table 3).

**Table 3. The relationship of determination between human resources management and teaching innovation**

Criteria	Total agreement	Agreement	Unconcerned	Disagreement	Total Disagreement	Total
No. of teachers	410	40	0	0	0	450
Percent	91.1%	8.9%	0	0	0	100.0%
Valid percentage	91.1%	8.9%	0	0	0	100.0%
Cumulative percentage	91.1%	100%	100%	100%	100%	100.0%

Source: personal contribution

HRM is found to have a major influence on the professional life of all employees in education, which leads to the need for a responsible approach and a vision of the policies in the field.

**Conclusions**

The management of educational institutions, especially its practices of human resource management, have an impact on the innovativeness of human capital. Thus, HR managers implement training arrangements, make decisions on reward structures, create teams, allocate decision rights, implement professional induction or evaluation systems, etc. The influence of these practices is able to weaken or strengthen the link between human capital and innovation performance.

In the empirical research undertaken, we started from two hypotheses. The first hypothesis: *There are concerns about the effectiveness of some human resources management practices in pre-university education to enhance the capacity of human capital innovation* is confirmed. The recruitment and selection of the teaching staff is partially decentralized, this being done on the basis of the specifications of the Methodology - a framework regarding the mobility of the teaching staff in pre-university education. The teachers are employed for a determined or indefinite period in a school unit based on a contest (application files, written exam), usually organized at the level of the school inspectorates, without directly contacting the representatives of the school unit, without to participate in an interview, without knowing its organizational culture, choosing according to the scores obtained for a school. In these situations, the "psychological agreement" between the employee and the employer is not always functional, often leading to demotivation, lack of involvement and performance. Regarding the score obtained by the practices that involve knowledge exchange, this represents a good indicator that should guide HR managers towards the need for team development, trust and real support among teachers.

The second hypothesis: *There is a determining relation between human resources management and innovation performance* is also confirmed, proving the confidence that the human resources have in the management of the educational institution, but also the high expectations in the orientation and the responsible manifestation of the HR policies.

Research limitations:

- the determinants studied only focus on the positive influence on the innovation;
- reporting to a small number of HR variables;
- research approach in terms of influence on teachers, not to the process itself;

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