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PhD THESIS ABSTRACT

**The development of human capital
and enterprise competitiveness**

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1. INTRODUCTION IN THE RESEARCH FIELD

In the framework of profound changes related to the introduction and use of new methods, principles and technologies, along with new forms of work organization, the human factor has become an essential and sustainable component for any organization. This is the factor that stimulates the development of a nation.

With economic globalization, increasing importance is given to human economic dowry starting with the middle of last century. This concern is interpreted by a prompt growth of studies offered for analysis. Therefore, there are a lot of researches regarding the economic performance of human capacity and its influence on the company's market position and competitiveness.

It is obvious that the development of the competitiveness of an enterprise, industry, economy, country, nation, becomes impossible without the accelerated development of social-economic sphere and the investments in human factor. Consequently, global regularities of post-industrial society development, namely of the competitive economy, are insufficiently studied. So far there is not a complex approach related to the formation, development and accumulation of human capital within competitive economy, with major impact and lasting effects. Investment components remain outside the field of study, respectively in the domestic and foreign economy, which determines the need to continue to investigate these issues similarly in the domain of methodology development and the methodology of evaluation the quantitative parameters and their efficiency.

For that reason we consider that the choice of the research topic is justified at least from this perspective. Next, we point out and present the motivation of research, which is focused mainly on the following areas:

- The utmost importance of competitiveness in ensuring the national welfare;
- The social and economic implications generated by competitiveness and human capital for the national economy, manifested towards: raising the level of economic development, educational progress and sustainable development of the society;
- The potential of the country development, in which, ensuring competitiveness at the microeconomic and macroeconomic level constitutes a very important aspect, as well recognized for its significance in the speciality literature;
- The dynamic development of the country, which determines the vital need to provide economic agents the opportunity to be competitive on the market;
- The competitive environment, in which economic agents operate, requires continuous improvement, human capital development of company employees and an accelerated rhythm of increasing the enterprise competitiveness;
- The willingness of the country heading for the European integration forces the economic agents to be competitive, to implement various methods towards ensuring enterprise competitiveness and human capital of the employees of these companies, to face the invasion of foreign goods abounding national market;
- The need to further explore new sales markets for the domestic producers, along with the embargo imposed by Russia, will make manufacturers demonstrate competitiveness and continuous developing potential to meet the permanent demands of the new markets.

As regards the existing level of knowledge in the field of the research, we want to highlight the fact that, although human capital has become a key element in ensuring the competitiveness of modern economy (Cotelnic A. Gorbunov I, Holt Gh.), numerous studies being dedicated to this domain (Iancev A., Iancev A.), complex empirical researches related to the interconnection between the human capital development and the enterprise competitiveness are limited (Smic A., O. Neagu).

2. MOTIVATION AND IMPORTANCE OF THE RESEARCH FIELD

The reasonable importance, paid to competitiveness and the human capital in the contemporary period by researchers, both on a national and international scale, together with the statistical data provided by relevant international organizations, highlights the significance of the research topic at micro and macroeconomic levels.

The justification of the importance and the motivation of the research, focusing on the interdependence between the enterprise competitiveness and human capital development, is supported, primarily, by the fact that ensuring competitiveness has become the new engine of the economic functioning.

Human capital development of the enterprises, with the aim of ensuring their competitiveness, constitutes an absolutely necessary and indispensable condition for the development of the society and businesses under discussion. It correspondingly contributes to overcoming the effects of deep recession, caused by systemic transformations which, over time, have been accentuated by the global economic crisis, and to achieving economic growth, both regionally and nationally, in addition to improving the living standards of the population.

In this respect, the opportunity of a thorough research in this domain is highly relevant for a balanced and efficient operation of the national economy and for a successful integration of the national economic system in the international competitive circuit of relations, which can be achieved only through competitively developed staff.

The urgent need to strengthen the competitiveness of human capital, to specify the consistency and the interdependence between staff competitiveness of the enterprises and to establish determinant components and elements of training competitiveness, determines the importance and the relevance of the chosen research topic.

In this paper we carried out an extensive study on the necessity and the importance of enterprise competitiveness, analysing today's society, the specific trends and business characteristics. The enterprise was the main analyzed unit in this study, along with the wider addressed thematic, which included issues related to human capital development, ensuring the competitiveness of enterprises, ways of achieving competitiveness, respectively the implementation of the methods designed for developing the human capital of the company. The previous component could increase the competitive level of the enterprise, both regionally and nationally. Among other discussed topics we can mention the evaluation of enterprise competitiveness in the north of the Republic of Moldova and the calculation of human capital competitiveness index for the country regions.

There is an extremely reduced number of empirical studies dedicated to this topic on the national level; the existing ones are carried out on certain sections of ensuring the competitiveness of the enterprises, giving us a reduced outlook on the scientific framework of the addressed topic. Regarding this background, we would like to emphasize the *degree of novelty* of the paper, outlined in the following elements:

- the regression model, offered by the author, aimed at analysing the interdependence of the enterprise competitiveness and human capital;
- the application manner of the research methodology in this field;
- author's offered model of evaluating the enterprise competitiveness;
- making a case study based on statistical data analysis, within three large enterprises, joint stock companies from the Republic of Moldova.
- author's thorough analysis on the regional competitiveness of the North-East region of Romania and the North region of the Republic of Moldova;
- performing a quantitative research, using a questionnaire, addressed to 31 companies, centred on a sample of 200 respondents from the North region of the Republic of Moldova, with the purpose of investigating the characteristics of the influence of human capital on enterprise competitiveness.

Consistent with the importance of the research topic, we want to point out that the *main goal* of the scientific research is to analyse the interdependence between the human capital and the enterprise competitiveness.

In this framework, we will specify the methods of ensuring and maintaining the competitiveness at the enterprises and the strategies, adopted by the companies, used to increase the competitiveness of their human capital and to achieve a balanced development.

In this respect, we wish to determine the existence of certain links and associations between the enterprise competitiveness and the human capital development, and to measure the dimensions of these two concepts, overall to determine the interdependence of these two concepts and to make suggestions in this regard. This objective will be achieved through a quantitative research conducted on three enterprises from the Republic of Moldova and a qualitative research based on the analysis of the secondary data.

In order to outline an appropriate framework of the scientific approach and with the aim of achieving the objectives of the research, we consider important to make a systematic presentation of the structure of this paper

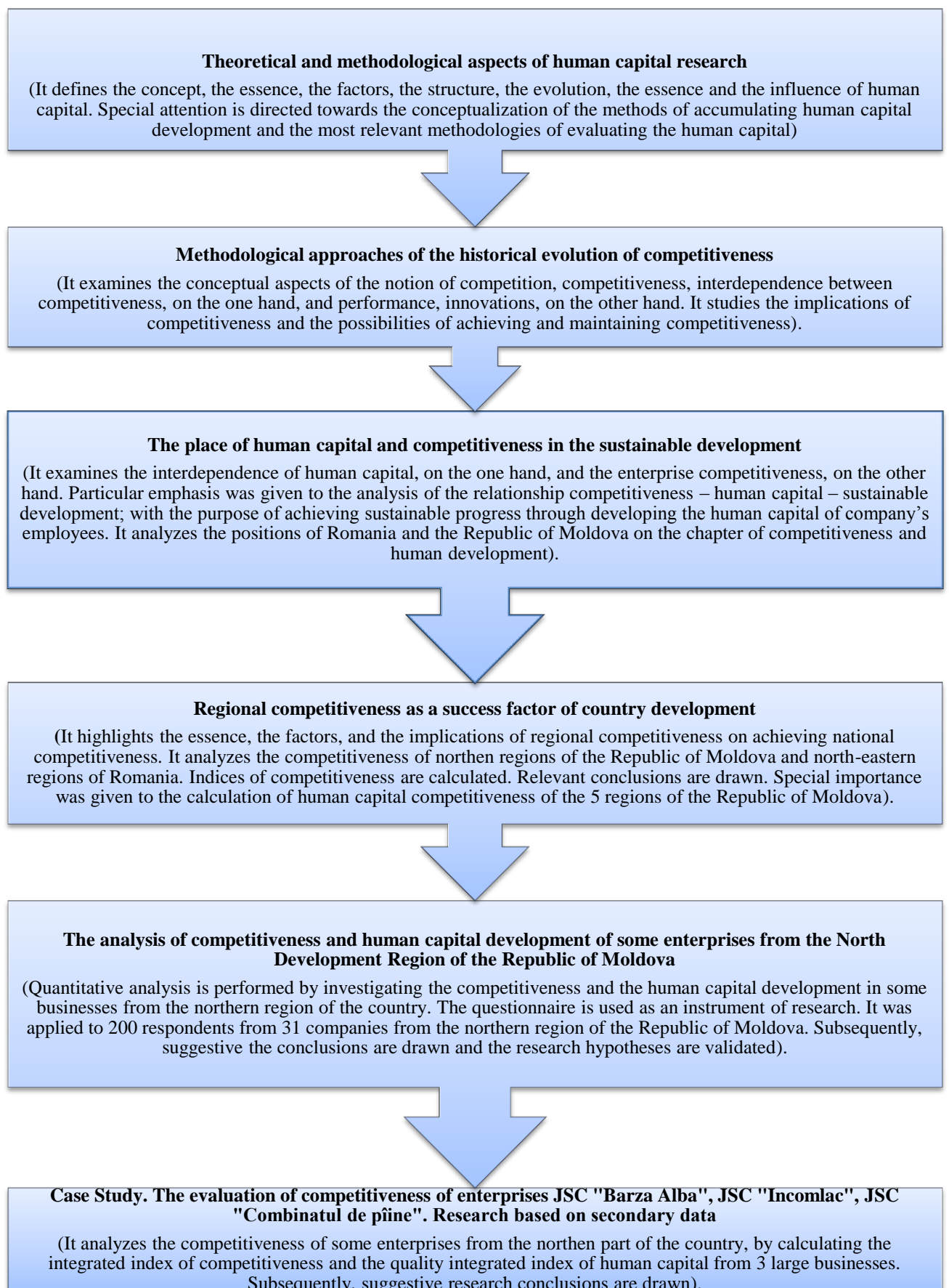


Chart 2.1 PhD thesis structure

3. RESEARCH METHODOLOGY

According to the linear model of scientific research, the first step is represented by setting the goals and defining the research hypotheses.

Our accomplished research is based on an interdisciplinary methodology and searches for an answer to the question: does human capital of the enterprises have influence on achieving a higher level of company competitiveness? In this study we find the answer to this question via applying different methods and investigations, conducted at both macroeconomic and microeconomic level.

The *main goal* of this scientific research is to analyse the relationship of interdependence between the human capital and the enterprise competitiveness.

The specific objectives that help elucidate the question discussed above are:

The *specific objectives* separated from the main goal of the research are the following:

- the determination of the conceptual framework of the human capital and the enterprise competitiveness;
- the presentation of the ways of human capital development in companies via characteristic methods;
- the empirical analysis of the climate of the competitive human capital development, specific for the companies from our country; recording important elements for achieving and maintaining enterprise competitiveness;
- the identification of particularities, specific for the relationship competitiveness – human capital – sustainable development, by conceptualizing the interdependencies between them;
- the presentation of the ways of assessing human capital competitiveness through characteristic methods;
- the analysis of the evolution of regional competitiveness and the highlight of national specific characteristics, intended for a balanced development of the country;
- the empirical analysis of the environment of the human capital development and the quality assessment methods of some businesses from the northern region of the country;
- the calculation of the regional competitiveness index of the Republic of Moldova;
- the analysis of the competitiveness of the North-Eastern region of Romania;
- the setting up of the problems the country is facing towards fulfilling the competitiveness;
- the highlight of the suitable solutions for businesses from the North of the country, on the way to achieve competitiveness

The Hypothesis, that appears as the foundation of the initiation research is:

H: The human capital of enterprises is the basic factor of ensuring and enhancing the competitiveness of the company.

From this general hypothesis we can highlight the following working hypotheses:

H1: There is a positive relationship between the human capital and the company competitiveness; with the increase of human capital within the company its competitiveness will increase simultaneously.

H2: The investments in the human capital of the enterprises positively influence the achievement of sustainable competitiveness.

H3: The enterprise competitiveness is positively influenced by the quality of employed staff.

H4: The existence of an enterprise quality management strategy, regarding the human capital, positively influences the company's competitiveness.

H5: The enterprise competitiveness is positively influenced by the regional competitiveness.

H6: The enterprise competitiveness is positively influenced by the national competitiveness.

The axioms and the fundamental principles of the accomplished research are enrolled in the epistemological movement, based on positivist theories. Consequently, our study involves

the following types of research: pure, predictive and applicative. We outlined empirical observations regarding the relevant phenomena, which constituted the background for defining the issues of company's competitiveness and human capital development. After collecting the data, analysing the information and formulating the hypotheses, we proceeded to independent testing. The used research method is the method of induction.

The pure research is a fundamental research that helps us understand the phenomena, the events, the transactions and the processes, specific for this topic. Therefore, we managed to lay the theoretical basis for understanding the company competitiveness and the influence of human capital on achieving the enterprise competitiveness.

In order to achieve the existing objectives; we made use of the predictive research. By means of our existing formal structures, we could predict the relationship between business competitiveness and the human capital of company employees, and further explain this relationship from the perspective of the sustainable development.

However, in order to identify the determinant factors of competitiveness and human capital, we made use of the instrumentalist or applicative research, which helped us finding practical solutions for delimitating the interdependencies between competitiveness and the human capital.

The literature review, associated to the problem under debate, was fulfilled by consulting the databases of the research papers, related to the investigation field.

The *methodological, theoretical and scientific support* of the research involved the focus on doctrines, concepts, principles, developed, so far, by scholars, with notorious names, in the field of economic theory, and particularly on human capital theory and competitiveness, such as: Adam Smith, David Ricardo, William Petty, John Stuart Mill, Theodor Schultz, Joseph Schumpeter, etc. In addition, the works of Romanian scientists are examined, among which are: Marta Christina Suci, Bogdan Voicu, Dumitru Sandu, Olimpia Neagu, Mihai Drăgănescu, Steliana Sandu, Aurel Iancu, Gheorghe Zaman, Constantin Ciutacu, Luminița Chivu, Andreea Clara Munteanu, Florin Pavelescu, Gheorghe Bala, Virgil Dănuț Amza and the works of Moldovan scientists: Grigore Belostecinic, Nadejda Șișcan, Dumitru Moldovanu, Olga Sorocean, Rodica Hâncu, Maria Hămuraru, Tatiana Pîșchina, Marina Bunu, Serghei Sobor, Eugen Hrișcev, etc.

In order to complement previous investigations, the present research was fulfilled via studying additional economic literature, national and international legal system, regulating the activity in this field, along with the study of specialized sites, statistical data, informational materials of various specialized organizations, of public administration, the reports of certain European international institutions, (UNESCO, OECD, European Council, IMF, UNCTAD, National Institute of Statistics of Romania, National Bureau of Statistics of the Republic of Moldova, National Bank of Moldova, Expert Group,) and those of public authorities, the treaties, readings and materials that have been the subject of certain scientific conferences or symposiums.

In order to achieve the specific set objectives, the undertaken research is of descriptive and explanatory nature, of the fundamental nature - theoretical and applicative – empirical, and the used techniques are qualitative and quantitative by nature.

The qualitative research has helped us presenting and analysing certain key concepts, accordingly, pointing out the most thorough explanations of studied phenomena and processes. The addressed topic generated a set of questions that we have tried to answer in a coherent and logical manner, for instance some of the research objectives being attained by a qualitative research.

Therefore, a method that was used in the study was “enlivening from abstract to concrete, which creates the possibility of explaining the shape originating from the essence, being used, predominantly, in analyzing the interdependence between the human capital and the enterprise competitiveness, and in determining the implications of the theories of human capital development on achieving sustainable competitiveness.

As regards the couple of methods, the analysis and synthesis, they are found in several chapters of the PhD thesis. For instance, when we were concerned with defining competitiveness, we analyzed each component of different viewpoints, then, using synthesis, we tried to reunite the parts in a whole and to express our own opinions on the phenomenon, respectively to answer the question of how a company can gain competitive advantages by developing its human capital. In addition, the dimensions and the characteristics of the relationship human capital – competitiveness were subjects of analysis and synthesis.

Within the empirical study, the analogy and the comparison methods were used in several parts of the thesis. These methods were used while investigating the effects of human capital development on business competitiveness and the analysis of local competitiveness of the regions of Romania and the Republic of Moldova. Furthermore, a comparative analysis was held on the calculation of competitiveness index for the regions of the Republic of Moldova, where we analyzed the competitiveness of individual regions, making a comparison with the most developed region.

The historical method is found both in the first chapter and in the second, by means of presenting the evolutionary discourse of human capital and competitiveness, from its origins to contemporary practices, and by means of analysing certain normative theories. Logical method has found expression through research phenomena, from simple to complex, following a certain historical line. Throughout the study, we aimed at capturing the interdependence system, created between business and society, respectively, between the human capital and competitiveness and which finally directed to certain results and consequences.

The induction and deduction are other two methods found in the research. While induction consists of drawing general conclusions and principles of individual case analysis, i.e. the passage from particular to general, deduction involves applying a reverse mechanism. For instance, after analysing the principles of ensuring regional enterprise competitiveness, we concluded that their application could lead to a balanced development of the country.

The logical method has found expression through research phenomena, from simple to complex, following a certain logical line. The statistical method was used within the framework of this research paper via the analysis and the interpretation of statistical survey data, held in some enterprises from RDN. The data, acquired from the investigation of enterprise staff, were statistically analyzed, afterwards, noticing certain suggestive tendencies of results.

The mathematical modelling was used, in this research, by way of analysing the interdependencies between the competitiveness and the human capital and by means of determining the correlations between these two concepts.

We used quantitative research to measure the concepts and the relationships between enterprise competitiveness and the human capital development. Also, through quantitative research, we were able to measure variables and indicators, generated by these concepts.

Additionally, through this research, we attained relevant results, significant for highlighting the situation of certain enterprises from the north of the Republic of Moldova, at the topic of enterprise competitiveness and human capital.

In the present investigation, the research hypotheses are correlated and formulated according to the specific goal and research objectives. A wide range of statistical methods - both statistical data analysis methods and hypothesis testing methods - were used to test each hypothesis. The chose for the diversity of statistical methods is supported by their complementary use; the ultimate goal being to obtain detailed and complete interpretations.

A qualitative and a quantitative research were performed in this research work. Both researches decisively contributed to the testing of the research hypothesis and to the highlighting of relevant conclusions.

4. ANALYSIS OF DATA AND HYPOTHESIS TESTING

All statistical methods, used in the present research, for data analysis and hypothesis testing were selected and applied taking into account the international empirical research in this area, our primary goal being their validation for the market of the Republic of Moldova.

Regarding the analysis of obtained data, we would like to mention that the above-mentioned was achieved through the use of the following programs: SPSS 17.0 (Statistical Packages for the Social Sciences) and Microsoft Office Excel.

Data analysis and hypothesis testing were performed in two stages, comprising:

- the results of the descriptive analysis of the observed data
- the results of descriptive analysis, hypothesis testing and interpretation of collected data

As regards the **quantitative research**, the method of data collection is the survey, and the used instrument is the questionnaire. The questionnaire consisted of 15 questions, structured from simple to complex questions. Towards the end of the questionnaire, the respondents return to simple questions, so they can easier conceptualize the investigated notions. The studied elements within the questionnaire are:

- the first part of the questionnaire contained factual questions, more complex inquires for the analysis of business activity and for the dimension of problem offered for analysis. The first part of the questionnaire aimed at highlighting and marking the business activity reflected in the analysis. The questionnaire was composed of both multiple-choice questions, which were used to emphasize the key issues, respondents' opinions concerning the analyzed variables, and the response scale questions, used to assess the degree of respondents' appreciation (Annex 8).
- the second part of the questionnaire comprised questions related to the highlighting and scoring of respondents' opinion, concerning the discussed issues and the economic agents' achievements in this field.
- the end of the second part of the questionnaire makes the transition to the last section, which comprises simple questions and identifies the respondents. The role of these questions was to verify the representativeness of the sampling.

The questions were designed accordingly, following the purpose of verifying the research hypotheses.

The specific hypotheses of the quantitative research are the following:

The general hypothesis of this research states that human capital positively influences the enterprise competitiveness from the North region of the Republic of Moldova.

The specific hypotheses of this research are:

1. The competitiveness of human capital positively influences the competitiveness of the company.
2. The enterprise competitiveness is positively influenced by the quality of staff.
3. There is a causal relationship between enterprise competitiveness and the investments in human capital.
4. There is a causal relationship between sustainable competitiveness and raising regular professional potential.
5. The competitiveness of employees is directly influenced by labour market competition.

The **subjects of the research** were the employees of the companies selected for the analysis. The companies' workers, participating into the investigation within the selected companies, responded with receptivity to the research, being headquartered in the North region of the Republic of Moldova, and regardless of the area of action: local, national or international. The companies were randomly chosen from the northern region of the Republic of Moldova and were receptive to the promotion of the research.

The **sampling method** – the simple random sampling was selected, which participated in the fulfilment of the research.

The **sampling** consisted of 200 employees (managers and non-management employees) of 31 companies and commercial firms (Annex 12). We can consider this test group as being a pilot sampling, selected with the aim of conducting a doctoral research survey, based on multi-

variable segmentation. The last one would provide better sampling representativeness and the minimization of random errors – simple random sampling method.

The companies participating in the research, the number of respondents and the district is listed in Annex 7 of the thesis.

The **method of data collection** - data were collected on every company ground, by questioning directly the respondents and distributing them the author's research survey. The questionnaire was completed personally by every respondent. During the progress of data collection, beginning with the telephone conversation regarding the interview schedule to the interview itself, the post-encoding of the responses and data grouping lasted for **4 months**, within the **period of September - December 2013**.

The **presentation of the results**. The elaboration of the database was carried out in February 2014, being followed by processing and analysis of data. The results of the survey are presented in Annex 5 of the thesis.

Following the data grouping research, we conducted a response analysis, carried on horizontally and vertically. Horizontal analysis involves independent presentation of answers to each question, and the vertical analysis aims at correlating the responses with the identification of statistical links and associations between the registered characteristics.

From the analysis of respondents' answers we can highlight the following aspects:

- the employees highly and positively appreciate the activity of the company they work at, which constitutes a valuable point for the further activity of the enterprise and for the creation of a positive image of the business.

- However, the great majority of the respondents consider that the economic and financial indicators of the companies, they are working at, are increasing – 56,5% scored an increasing volume of productivity, 64% of semi-cost of production, 73% of the level of general and administrative expenses, 55 % of return and profit, 65% of the production assortment, 61% of the number of buyers, 50,5% of market share, and only 17% of investments in personnel and staff stability and 18,5% of labour productivity. This is an extremely alarming circumstance for the department of human resources of the analyzed firms. Analysing strategically, we might sense, at the enterprise level, a sharp decline of profit, profitability, revenue and loss of buyers, based on the failure of labour productivity, the personnel fluctuation and the lack of staff investment.

- Out of numerous suggested elements, having major influence on enterprise competitiveness, companies' employees highlighted the qualitative factors. They consider the quality and the innovations as being important vectors to follow and to implement, in order to ensure a competitive course of enterprise development.

- The respondents consider that the main problems, encountered by the enterprise, while achieving market competitiveness, are the following: the risks and the inexperienced and unqualified staff. These issues are also preventing many companies from the northern region of the Republic of Moldova to attain competitiveness. Therefore, the alarming need of human capital development of the enterprise employees arises. This can be achieved through various development methods and the raise of professional level.

- The vast majority of respondents believe that the organization, they are working at, offers them the chance to develop their career, outlined in the 3rd level by importance, 52% of the respondents consider that the company offers them various opportunities for professional development, outlined in the 2nd level by importance, 51,5% are certain that they can openly discuss their career paths with the enterprise manager.

- The great majority of respondents (82,5%) believe that less than 20% of enterprise employees were involved in training and development programs. This alarming fact also explains the low labour productivity within the analyzed companies. Moreover, we sense the urgent need to implement certain development programs for the employees, in order to ensure and maintain the current enterprise competitiveness, and to enable the planning of sustainable competitiveness.

- Several respondents believe that the competitiveness of human capital influences the competitiveness of the enterprise, assessing the degree of impact to 80% and 28,5% of the interviewed persons consider that the degree of this influence constitutes 90%. A paradox and an extremely favourable statement for the analysed enterprises is the fact that there were no respondents considering that human capital hasn't influence upon enterprise competitiveness. This is a satisfying circumstance, since all the respondents were of the opinion that the competitiveness of human capital influences, to some extent, the competitiveness of the enterprise.

- A large number of respondents believe that it is necessary to plan the sustainable competitiveness. Therefore, the company's personnel is aware of the need of planning future competitiveness and understands that being competitive at the moment, i.e. reaching a certain level of current competitiveness, does not presume the achievement of a future sustainable competitiveness.

- The performed analysis shows that the most important factor that contributes to the sustainable competitiveness is the factor of "professional compliance requirements," "regular rising of the professional level." So far, we could observe that the employees are aware of the need to conform and to comply with certain standards, norms and professional requirements.

- A large number of respondents rated current staff competitiveness at the level of 90, which shows that the employees have good opinion about the competitiveness of the enterprise they work at. We notice that the research hypothesis 8 was not confirmed, for the reason that the vast majority of respondents appreciated the competitiveness of the enterprise they work at, by 90% and not 50-60%, as we stated in the hypothesis.

- The great majority of the survey respondents (77%) pointed out and emphasized "the ability to compete on the labour market" as being an essential quality that would characterize the current competitiveness of the human capital. This quality, in fact, is transformed into an imperative, as company becomes competitive via its employees and personnel.

- 43% of the respondents, who participated in the questionnaire, have incomplete higher education degrees, 27% hold higher education diplomas, 23% have secondary vocational education degrees, 5% - secondary education degrees, 2% - high school degrees. This fact proves that business managers rely on their employees' qualifications.

- We want to mention that within the study 46,5% of the participants have 5-10 years of working experience, 39% the participants have 11-20 years of working experience, 9% of the participants have 21-30 years of working experience, 3% of the participants have over 30 years of working experience, 2,5% of the participants have up to 5 years of working experience. This fact highlights that the majority of respondents have a rich working experience and their answers are, to some extent, objective, since they have a vast professional background.

- We want to point out that 45,5% of the research participants were specialists, 41,5% - workers, 13% - managers. This fact shows that the study involved different categories of workers and, therefore, different opinions were collected from different categories of workers. This circumstance increases the objectivity of the research results.

With regard to the **qualitative research**, we can mention that with the ratification of the association agreement, there is an increase need for companies, able to deal with the invasion of foreign goods, and being competitive on the market. It is absolutely necessary to investigate this situation at the company level, taking into account the company competitiveness.

The **research goal** is to analyse the interdependence of competitiveness and the quality of the human capital within the analysed enterprises.

The **specific objectives**, subordinated to the general objective, are:

- The determination of the calculation formulas of the integrated index of enterprise competitiveness.
- The calculation of the 50 indicators for the integrated index of enterprise competitiveness.
- The analysis of the recorded positions of the investigated companies.

- The determination of calculating methods for the complex index of the quality of human capital.
- The complex index calculation of the human capital of firms.
- Establishing the interdependencies between the integrated index of firm competitiveness and the complex index of the quality of company human capital.
- Pointing out suggestive conclusions.

The general hypothesis of this research states that human capital positively influences the enterprise competitiveness from the North region of the Republic of Moldova.

The specific hypotheses of this research are:

1. The competitiveness of human capital positively influences the competitiveness of the company.
2. The enterprise competitiveness is positively influenced by the quality of staff.
3. There is a causal relationship between enterprise competitiveness and the investments in human capital.
4. There is a causal relationship between sustainable competitiveness and raising regular professional potential.
5. The competitiveness of employees is directly influenced by labour market competition.

The *research sampling* was formed of 3 large Joint Stock Companies (JSC), having more than 200 employees and functioning on the market for over 30 years. The businesses under analysis were: JSC “Barza Alba”, JSC “Incomlac”, and JSC “Combinatul de piine of Balti” (Annexes 13 and 14).

Research results. While calculating the integrated index of the enterprise competitiveness we have to take into account the method of determining the weighted average of individual indicators of enterprise competitiveness. This method offers the capability to compare homogeneous firms, having different individual indexes:

$$K = \prod_{i=1}^n \left(\frac{k_i}{n_i}\right)^{w_i} \quad (4.1)$$

where k_i - the sum of individual indexes of enterprise competitiveness and for i enterprise processes;

n_i – the number of individual indexes of enterprise competitiveness of i processes;

W_i - the weight of i group of the business processes;

Π - the outgoing work processes, numbered $i = 1, 2, 3, 4$.

The weight of each group of indexes of business processes is equivalent ($W_i = 0,25$), adding the values we get 1. This fact allows us to track the change of the integrated index of enterprise competitiveness, and to observe the change dynamics of the individual indexes. The dependency of competitiveness and the quality of human capital can be traced through individual indexes of competitiveness, calculated for the analysed businesses.

The approval of the integrated competitiveness index was performed by calculating 40 individual indexes of competitiveness, within 3 of companies, selected for this analysis: JSC “Barza Alba”, JSC “Incomlac”, and JSC “Combinatul de piine of Balti”, which are included in the branch of food industry of the Republic of Moldova.

The analysis of the financial reports of the investigated companies offered the possibility to estimate 40 individual indexes, which serve as the basis for calculating the enterprise competitiveness. The values of these indexes are shown in Annex 9 of the thesis. The following data permit to analyse the value of the integrated index of enterprise competitiveness from the analyzed firms, according to the chosen formula:

Table 4.1

Enterprise	2009	2010	2011	2012	2013
JSC “Barza Alba”	1,42	1,52	1,20	1,22	1,01
JSC “Combinatul de piine of Balti”	1,37	1,51	1,46	0,88	0,73
JSC “Incomlac”	1,55	1,78	1,29	0,55	0,55

Source: own elaboration.

The graphical representation of the integrated index value of enterprise competitiveness is shown in Chart 6.2.1.

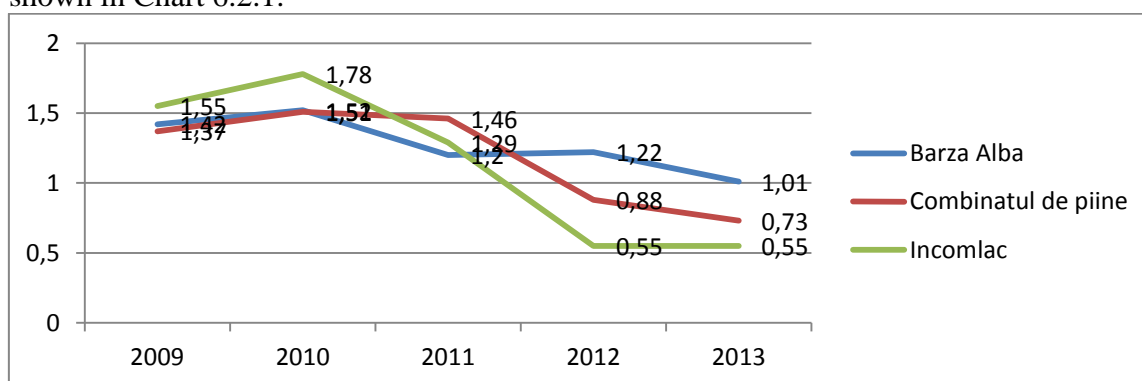


Chart 4.1 Integrated competitiveness index values

Source: elaborated by the author

The examination of the above figure offers the opportunity to detect that JSC “Incomlac” was the most competitive firm at the beginning of the investigation. This fact is supported by a maximum score of the integrated index of competitiveness, which registered a value of 1,55, while the lowest value of the indicator was recorded by JSC “Combinatul de piine of Balti”, which registered a rate of 1,37.

The results of calculating the complex index of the quality of human capital are represented in Table 4.2.

Tabelul 4.2

Enterprise	2009	2010	2011	2012	2013
JSC “Barza Alba”	4,04	4,086	4,026	3,96	3,985
JSC “Combinatul de piine of Balti”	4,227	4,39	3,876	3,836	3,801
JSC “Incomlac”	3,831	3,881	3,771	3,791	3,791

Source: elaborated by the author.

The graphical representation of results, acquired by calculating the complex index of the quality of human capital, is exposed in the following chart:

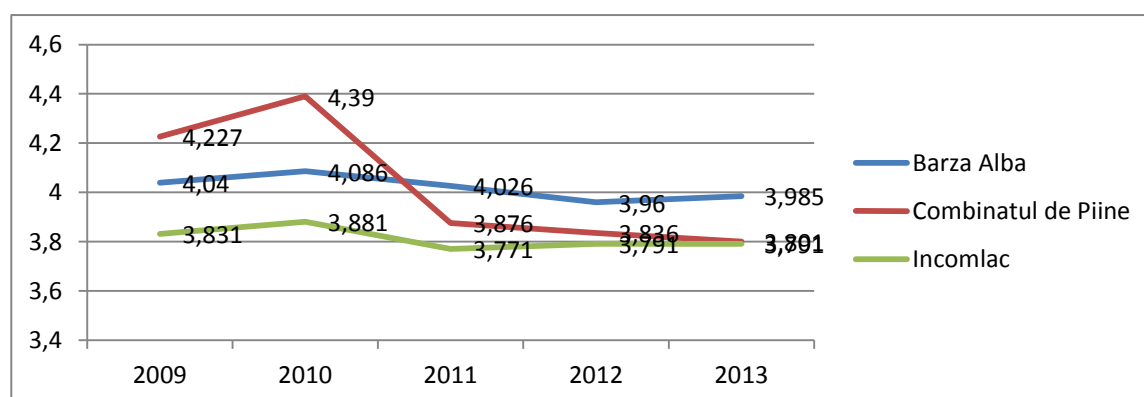


Chart 4.2.: „The graphical representation of the complex index of the quality of human capital at the analysed enterprises”

Source: elaborated by the author.

Numerical values were assigned to each element of staff development system. The inspection of the above figure offers the possibility to see that the analyzed companies revealed different values of the complex index of human capital quality. Therefore, at the beginning of the analysis, in 2009, the company JSC “Combinatul de piine of Balti” was highlighted. This enterprise recorded the highest value of the complex index of human capital quality, registering a

rate of 4,227. At the end of the analysis, in 2013, the prevalent index value was recorded by JSC “Barza Alba”, registering a rate of 3,985.

The previous researches offer us the opportunity to mention that human capital plays an important role in the enterprise production process and its competitiveness. With the intention of determining the influence of human capital quality on business competitiveness, we will perform a correlation and a regression assessment.

The quantitative characteristic of the linear relationship between two random variables X and Y is the coefficient of correlation. The input parameter, in this case, will be the human capital index, and the output parameter, will be the integrated business competitiveness index, which is not found in a functional dependency. Consequently, in order to assess the level of the dependence, we used the linear correlation method.

The linear correlation coefficient characterises the neighbouring and the direction of the relationship between the two correlated variables when there is a linear dependence between them. The evaluation of the correlation coefficient for a sample of observations (X_i, Y_i) , $i = 1, 2, 3 \dots n$, is calculated according the formula [79]:

$$r = \frac{Q_{xy}}{\sqrt{Q_x * Q_y}} \quad (4.2.)$$

where, $Q_x = \sum (x_i - \bar{x})^2 = \sum x_i^2 - \frac{(\sum x_i)^2}{n}$ (4.3.)

$$Q_y = \sum (y_i - \bar{y})^2 = \sum y_i^2 - \frac{(\sum y_i)^2}{n} \quad (4.4.)$$

where n - the number of observed units.

There is the possibility of calculating the correlation coefficient using the following formula:

$$r(X, Y) = \frac{cov(X, Y)}{\sigma_x * \sigma_y} \quad (4.5.)$$

where, σ_x și σ_y represents the standard a deviation, statistically significant, of the variable;

Cov (X,Y)- the characteristic variation of the interdependence of the variables X and Y.

The closer r is to one, the more the dependence approaches to the linear one. If $r < 0,5$, then we come across a nonlinear dependence. For the qualitative characteristics of the received results, i.e., between the characteristics of the relationship among the studied phenomena and their characteristics, we can use the power scale correlation.

The model, expressing the relationship between the dependent variable (*enterprise competitiveness*) and the numerical independent variable is written as:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \quad (4.6.)$$

After testing and validating the regression model, we observed the interdependence between the human capital and the enterprise competitiveness. Therefore, the general research hypothesis was validated.

Establishing certain quantitative relationship between the integrated index of enterprise competitiveness and the index of human capital quality, together with the increased competition, the use of new technologies and product lines, the expenditure of new sales techniques, the intensification of business barriers on the path of achieving enterprise competitiveness, encourage the need to continuously raise the quality of human capital, to accumulate new information and gain new theoretical and practical knowledge, to apply this knowledge into practice, consequently, to develop the professional skills of the employees.

5. A BRIEF SUMMARY OF THE PHD THESIS

The doctoral thesis is structured into six chapters, each containing several subchapters, developing and analysing various aspects of the research.

The first chapter „Theoretical and methodological aspects of human capital research” is dedicated to the conceptual framework, the dimension and the determinant factors of the human capital. A systematic research was made, concerning the time evolution of the concept of human capital with a review of the most outstanding scholars, who have contributed to the development of this concept. Relevant national peculiarities of the characteristics of the human capital are elucidated, pointing out the native researchers, who have contributed to the analysis of human capital. The essence of the concept of human capital was studied. We offered our own interpretation of the concept of human capital. The structure of the human capital and the most relevant assessment methodologies of the human capital quality were presented. We proposed our own methodology for calculating the quality of human capital at the company level. The characteristics of the human capital and the intellectual capital were well-defined, analysing the interdependence between these concepts.

Chapter 2 „Methodological approaches of the historical evolution of competitiveness” outlines the conceptual and methodological delimitations of the notion of competition, which constitutes the basis of competitiveness. We analysed the evolution of the concept of competition and pointed out the scholars who have contributed, in different time periods, to the development of this concept. We also investigated the interdependence between the concepts of competition and competitiveness and scored the characteristic elements of this analysis. The present chapter highlights the interdependence between the conceptual notions of competitiveness and performance, pointing out the links between these concepts. Therefore, the characteristics of microeconomic and macroeconomic competitiveness are examined, as well as its implications for the economic welfare. We correspondingly discuss the core competitiveness of the enterprise and the existing links between the competitiveness, on the one hand, and the innovation, on the other hand. The enterprise competitive strategies are reviewed, used for maintaining and increasing the competitive level of the company. This chapter examines the sustainable competitiveness, specifying its content, factors and effects on the national economy. It also highlights the most relevant methodologies in assessing the competitiveness.

Chapter 3 „The place of human capital and competitiveness in the sustainable development” analyses the interdependence of human capital of the enterprise, on the one hand, and competitiveness, on the other hand. It also investigates the recorded positions of the Republic of Moldova and Romania in the world competitiveness rankings, according to the World Economic Forum. Particular attention is given to the analysis of the relationship competitiveness – human capital – sustainable development, representing the formula of achieving national welfare. The conceptual characteristics of the notion of human capital competitiveness are reviewed, together with certifying the scoring process of ensuring and maintaining the competitiveness of human capital at the microeconomic level. According to previously conducted researches, the present chapter examines the business competitiveness in the northern region of the Republic of Moldova and analyses its characteristics and determinant factors. It highlights the essential features of human development in the Republic of Moldova and Romania, along with those of the Western Balkans and Eastern Partnership countries according to the Human Development Global Report. The trends and the prospects in the development of the human capital are pointed out, along with the outlining strategies of enhancing the competitiveness of human capital.

Chapter 4 „Regional competitiveness as a success factor of country development” analyses the conceptual and the methodological aspects, the place, the factors, the essence and the implications of regional competitiveness. It also examines the most relevant methodologies for assessing regional competitiveness and analyses the competitiveness of the North-East Region of Romania, defining competitive indexes characteristic for the results interpretation. It similarly considers the competitiveness of the northern region of the Republic of Moldova, investigating several indicators of regional competitiveness. The present chapter examines the potential of each region and the development potential of human capital in the region. Special

importance was given to the analysis and calculation of human capital competitiveness of 5 regions of the Republic of Moldova, specifying the characteristics of individual regions.

Chapter 5 „The analysis of competitiveness and human capital development of some enterprises from the North Development Region of the Republic of Moldova” analyses the competitiveness of some enterprises from the North Region of the Republic of Moldova. It performs a quantitative research, states the hypotheses, the purpose and the methodology of research and gives a thorough interpretation of the research results. Suggestive conclusions are drawn, concerning the possibilities of increasing enterprise competitiveness in the northern region of the country. The questionnaire is used as the main research tool. Afterwards, the collected data is interpreted in this chapter.

Chapter 6 „Case Study. The evaluation of competitiveness of enterprises JSC "Barza Alba", JSC "Incomlac", JSC "Combinatul de piine". Research based on secondary data” carries out a qualitative research based on three big companies from the North Region of the Republic of Moldova. It examines the interdependence between business competitiveness, on the one hand, and the human capital of company employees, on the other hand. The calculating procedures for the integrated index of enterprise competitiveness and the complex index of human capital quality are meticulously explained in this chapter. Subsequently, these indexes are calculated for each analysed company. The data are interpreted using the SPSS statistical program. A regression model is developed, tested and validated. The errors of the regression model are analysed and tested in order to see if there is a relationship of interdependence between business competitiveness and employee human capital of the enterprise. After analysing the results, suggestive conclusions and proposals, concerning the improvement of competitiveness and quality of human capital, are outlined.

6. FINAL CONCLUSIONS AND PERSONAL CONTRIBUTION

The presentation of the conclusions within a scientific work represents the last stage of the research, a moment of vital importance, because it highlights the essence of the achieved results.

To the goal of this research, “the highlighting of the ways of development, insurance, and preservation of competitiveness at the regional, national, and company level, through human capital development of company employees” and to the specific objectives of the research, we would like to attach more relevant conclusions, that have been grouped in the following table in order to point out the logic framework of the research.

Table 6.1.

Logic research framework

Specific objectives	Concluzii specifice
determining the conceptual framework of human capital and enterprise competitiveness;	- Human capital represents the volume of individual capacity and quality, built with the help of investments. Their effective use leads to the growth of competitiveness and income. - From the economic point of view, competitiveness is more often associated with the productivity or the efficiency with which inputs are transformed into goods and services.
The analysis of the evolution of human capital from antiquity to the present and the highlight of some national peculiarities;	The approach of human capital concept was performed in several directions, but each of them introduced human capital as a set of skills, knowledge and abilities of people, which directly contributed to the growth of income.
addressing specific theories of human capital development for the business of our country;	The methods for developing specific environment and economic circumstances of human capital of the country were specified.
identifying the specific features of the relationship between the human capital and the competitiveness by conceptualizing distinct patterns;	Several concepts have been developed, demonstrating the interdependence between human capital and competitiveness .
Presenting the ways of developing human capital of	Specific ways of developing human capital at the microeconomic

the companies through characteristic methods;	level were presented, using multiple models that take into account diverse characteristic variables.
The empirical analysis of the competitive environment of human capital development specific for national companies;	The notion of human capital competitiveness and its influence on national companies were emphasized.
Pointing out the elements of achieving and maintaining enterprise competitiveness;	A scheme has been developed in order to outline the necessary elements to ensure and maintain competitiveness.
Identifying specific features of the relationship competitiveness – human capital - sustainable development by conceptualizing the interdependencies between them;	A comprehensive analysis was performed, elucidating the relationship between these concepts a scheme was developed, highlighting existing interconnectons between the studied concepts.
Presenting the ways of evaluation of human capital using characteristic methods;	Several methods for assessing human capital were specified; personal method of assessment was proposed.
The empirical analysis of the development climate of human capital and the assessment methods of its quality.	Several methods for assessing the quality of human capital were elucidated; the specificity of each of them was pointed out.
The analysis of regional competitiveness evolution highlights specific features for developing an industrialized balanced country;	The essence, the content, the characteristic factors and elements of regional competitiveness were specified. It was also specified their contribution to the formation of national competitiveness.
Pointing out elements of ensuring and maintaining the competitiveness of enterprises from the North region;	Characteristic elements of enterprise competitiveness of the North of the country were highlighted.
The identification of specific features of the relationship regional competitiveness – human capital by conceptualizing the interdependencies between them;	The interdependence between human capital and regional competitiveness was specified through quantitative research, carried out in the northern region of the country.
The presentation of ways of assessing regional competitiveness through characteristic methods;	Several characteristic methods for evaluating regional competitiveness were specified. An analysis was performed based on the data of the competitiveness of the 5 regions of the Republic of Moldova.
The empirical analysis of the development environment of human capital and the assessing methods of its quality within some businesses from the north;	The situation of several companies from the North of the country was analysed concerning the quality and development of human capital.
The calculation of the index of competitiveness of the regions from the Republic of Moldova;	The index of competitiveness of the regions of the Republic of Moldova was calculated. We noticed that the northern region ranks the 2 pace, after Chisinau region.
The analysis of the competitiveness of the North-East Region of Romania;	The competitiveness of North-East region of Romania was analysed, together with several factors that ensure competitiveness of the region.
Determining the facing problems of the country while achieving competitiveness;	There were pointed out many problems or shortcomings, encountered by the country on its way to meet competitiveness. These ones must be otherwise resolved and can contribute to a sustainable development and a competitive environment.
Outlining appropriate solutions for businesses from the North region, in order to achieve competitiveness.	Some proposals of increasing and improving the situation of the enterprises in the northern region of the country were scored.
Stating relevant conclusions and recommendations.	Towards the end of scientific research we formulated relevant conclusions and recommendations that will help to ensure a competitive environment by developing the human capital of workers.

Source: elaborated by the author

The PhD thesis “The Development of Human Capital and Enterprise Competitiveness” takes the form of a modest contribution to the huge effort of professionals to link the practice and the deontology related to the process of ensuring global competitiveness of enterprises through human capital development.

However, via this work, we want to open a road of understanding the pillars of ensuring national sustainable competitiveness.

Within the conducted scientific research we could point out certain investigation limits, having little significant implications on the achieved conclusions. However, these limits can serve as a foundation for future projected studies, thus, emphasising the prospects of this research.

The fundamental addressed element for future research would be the extension of the research sampling.

Our attention will be directed towards the widening of the area of the variables, having the goal of redefining certain indicators, in order to clarify the process which they describe and define. We will also consider the extension of approach perspectives and directions of competitiveness and human capital.

Thus, we could include a new perspective of approaching competitiveness – “external assurance”. This would comprise variables, containing external information for the economic entity, i.e., macroeconomic factors. At the same time, new variables of the performed analysis can be included. Besides the human capital, we can additionally analyse the innovation, the clusters, the investments, and we can undertake a comparative analysis of these concepts.

Therefore, the further research aims at detailing the aspects of the validated factors as being explicative for the developing of competitiveness, both through new calculation methods and through their application at the level of many types of business entities.

The perspective of the research also includes the development of a new calculation method of enterprise competitiveness, able to capture the characteristics of more valuable factors.

Additional perspective is offered by be the use of statistical investigation of the companies from Romania, which would help us to identify a better way of defining the competitiveness and the independent variables, and to perform a comparative analysis of the collected responses from the Republic of Moldova and Romania.

However, the empirical study, regarding the businesses from other regions of the Republic of Moldova, would constitute a different future research direction, which, because of the scale of the subject, could not be addressed in this thesis.

7. RECOMMENDATIONS FOR FUTURE RESEARCH FIELD

Given the limits of the research, we consider important to present the following recommendations of the investigation:

- the extension of the research to several regions of the country, or to national level, will be able to comprise a larger number of studied units. In this situation, the research will achieve a better representativeness and will carry skilful and efficient suggestions, designed for the studied domain.
- the accomplishment of a comparative and complementary study, which would enable, correspondingly, the examination of this issue in Romania, by means of statistical survey, conducted at the level of the enterprises from Romania. This fact will help us to identify a better way of expressing the competitiveness and the independent variables, and to perform a comparative analysis of the responses acquired from the Republic of Moldova and Romania.
- improving the research model, focussed on human capital, that could be complemented with other variables, such as innovation, investment, clusters.
- performing a future analysis on the impact of competitiveness and human capital upon the performance and sustainability of the economy.

8. DISSEMINATION OF RESULTS

The results of the investigations were disseminated through participation in national and international conferences, international symposiums, seminars and round tables, organized in the country and abroad.

The following scientific works have been published:

Published books:

1. Movilă Irina, Dorogaia Irina, Suslenco Alina. *Collective Monography "The Strategic Management of Human Potential"*, coord. Movilă Irina, Balti University Press, Balti, 2014, 192 p. ISBN 978-9975-50-138-5.

Published magazine articles:

2. MOVILĂ Irina, SUSLENCO Alina. The Analysis of Competitiveness Index of the Republic of Moldova and the Efficiency of Labour Market according to the method of Global Economic Forum./ *The Scientific-didactic Magazine Economica: Chisinau*, AESM, 2014, An. XXII, No. 2 (88), June 2014, pp. 32-38. ISSN 1810-9136.

Lucrări publicate în volumele unor conferințe internaționale :

3. SUSLENCO Alina. The integration of young people into the labor market by increasing their competitiveness. / „*The integration of specialists having a higher education degree in the labor market: national and international issues*”: Scientific Practical Intern. Conference Resources. Balti: Balti University Press, 2012. 48-50 pp. ISBN 978-9975-50-069-2.
4. SUSLENCO Alina. The regional approach - a primary factor for increasing the competitiveness of the Republic of Moldova. / “*Human capital competitiveness in the labor market, in terms of regional development and European integration*”: Scientific Practical Intern. Conference Resources. Balti: Balti University Press, 2013. pp. 73-79. ISBN 978-9975-50-119-4.
5. SUSLENCO Alina. From competitiveness to entrepreneurship, for a competitive entrepreneurship. / „*The Scientific Symposium of Young Researchers*”: the 11th Edition, April 25-26, 2013. Chisinau, AESM, 2013. pp. 207-212. ISBN 978-9975-75-658-7.
6. SUSLENCO Alina. The influence of the labor market for professional development and specialists' competitiveness. / „*Actual problems of economy development in the global growth*”: Scientific Practical Intern. Conference Resources. Odessa, Atlant, September 19-20, 2013, УДК 339:338:1. pp. 115-118.
7. SUSLENCO Alina. Human capital and competitiveness - the success factors of the enterprise. / *Modern trends in science and education*: Scientific Practical Intern. Conference Resources. Moscow, March 3, 2014, Volume III, 2014. pp. 19-21. ISBN 978-5-906353-85-6.
8. SUSLENCO Alina. Human resources - their role for increasing the competitiveness in tourism. / *Romanian rural tourism in the context of sustainable development*: Scientific Practical Intern. Conference Resources, Iasi, May 22-25, 2013, Volume XXXII, 2013. pp. 53-57. ISBN 978-973-730-482-7.
9. SUSLENCO Alina. Rural tourism - factor of increasing the competitiveness of the Republic of Moldova. / *Romanian rural tourism in the context of sustainable development*: Scientific Practical Intern. Conference Resources, Iasi, May 22-25, 2013, Volume XXXI, 2013. pp. 45-51. ISBN 978-606-7687-012-2.
10. SUSLENCO Alina. Increasing the competitiveness of the Republic of Moldova by developing the human factor. / *The role of Euro regions in the sustainable development within the global crisis*: Scientific Practical Intern. Conference Resources, Iasi, June 21, 2013, Volume XVII, Tehnpress, 2013. pp. 116-120. ISBN 978-973-702-913-3.
11. SUSLENCO Alina. The effects of migration on labor market development. / *Progresses in the theory of economic decisions in conditions of risk and uncertainty*: Scientific Practical Intern. Conference Resources, Iasi, October 16, 2012, Volumul XVII, Tehnpress, 2012. pp. 47-53. ISBN 978-973-702-947-8.
12. SUSLENCO Alina, MOVILĂ Irina. Strategic competitiveness implications on economic development. / “*Competitiveness and innovation in the knowledge economy*”: Scientific

- Practical Intern. Conference Resources, September 28-29, 2012: AESM, 2012, pp. 344-348. ISBN 978-9975-75-628-0.
13. SUSLENCO Alina. Enhancing the competitiveness of Moldova through the development of human factor. / *60 years of economic higher education in the Republic of Moldova: achievements and prospects*: Scientific Practical Intern. Conference Resources, September 27-28, 2013, volume I, AESM, pp. 32-36. ISBN 978-9975-667-9
 14. SUSLENCO Alina. Strategies of increasing the competitiveness in the contemporary economy. / *Management strategies and policies in the contemporary economy*: Scientific Practical Intern. Conference Resources, March 28-29, 2014, the 3rd Edition. Chisinau, AESM, 2014. pp. 250-255. ISBN 978-9975-75-678-5.
 15. SUSLENCO Alina. Competitiveness - the factor of change in the economy of the Republic of Moldova. / *Progresses in the theory of economic decisions in conditions of risk and uncertainty*: Scientific Practical Intern. Conference Resources, October 19, 2013, Volume XIX, Iasi, Tehnopress, 2013. pp. 254-261. ISBN 978-606-687-108-2
 16. SUSLENCO Alina. Human capital and competitiveness - factors of eliminating the uncertainty. / *Progresses in the theory of economic decisions in conditions of risk and uncertainty*: Scientific Practical Intern. Conference Resources, October 19, 2013, Volume XXI, Iasi, Tehnopress, 2013. pp. 153-164. ISBN 978-606-687-110-5
 17. SUSLENCO Alina. Aspects of regional competitiveness evaluation in the contemporary economy. / *The Scientific Symposium of Young Researchers*: Scientific Practical Intern. Conference Resources, April 4-5, 2014. Chisinau, AESM, 2014, Volume 1, AESM, pp. 151-153. ISBN 978-9975-75-689-1
 18. SUSLENCO Alina. Quality staff development is the foundation of increasing the competitiveness of the country. / *Theory and practice of public administration*: Scientific Practical Intern. Conference Resources, May 23, 2014. Chisinau, AAP, 2014, pp. 444-447. ISBN 978-9975-4241-9-6
 19. SUSLENCO Alina. Comparative analysis of regional competitiveness of North East Region of Romania and the North Region of the Republic of Moldova. / *The role of Euro regions in the sustainable development within the global crisis*: Scientific Practical Intern. Conference Resources, June 27, 2014, Volume XIX, Iasi, Tehnopress, pp. 241-254. ISBN 978-606-687-108-2
 20. SUSLENCO Alina. Human capital and competitiveness - two vectors of the economic viability of the country. / *Science and education in the XXI Century: Theory, Practice, Innovation*: Scientific Practical Intern. Conference Resources, June 02, 2014, Moscow. pp. 118-120. ISBN 978-5-9905661-7-0
 21. SUSLENCO Alina. Regional competitiveness - methodological approaches and perspectives. / *Perspective and integration issues in the European higher education*: Scientific Practical Intern. Conference Resources, June 5, 2014. Cahul, 2014, Volume II, pp. 214-218. ISBN 978-9975-914-92-5.
 22. SUSLENCO Alina. Economic growth and competitiveness of human capital - two facets of sustainable economy. / *Qualitative economic growth: theoretical and practical aspects*: Scientific Practical Intern. Conference Resources, February 27, 2014, Chisinau, AESM, 2014, pp. 229-234. ISBN 978-9975-75-687-7
 23. SUSLENCO Alina. The effects of the relationship competitiveness – human capital – sustainable development for the national economy. / *Economic growth in the condition of globalization*: Scientific Practical Intern. Conference Resources, October 16-17, 2014. Chisinau, INCE, pp. 265-269. ISSN 978-9975-4185-2-2.
 24. SUSLENCO Alina. Staff competitiveness and innovation two facets of sustainable economy. / *Policies and innovation and development mechanisms of the economic and social financial processes on the national and international levels*: Scientific Practical Intern. Conference Resources, November 31-01, 2014, SUM, 2014, pp. 527-531. ISBN 978-9975-71-574-4

Published works in the volumes of national conferences:

25. SUSLENCO Alina. The competitiveness of human capital, from the North development region, on the labor market. / *The impact of human resource quality on socio-economic development of the Republic of Moldova*: Scientific Practical Conference Resources, November 2013, The Institute of Labour, pp.53-60. ISBN 978-9975-4242-8-8.