



## THE ROLE OF HUMAN RESOURCE MANAGEMENT IN RETAINING TALENT: EMPIRICAL ANALYSIS OF YOUTH IN THE REPUBLIC OF NORTH MACEDONIA

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### Abstract

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*This paper studies the "brain drain" phenomenon through the prism of its intensity in the Republic of North Macedonia, and examines its positive and negative impacts, and its effect on the development of human resource management in the country, which is one of the key departments of any organization. This research, which covered 1400 respondents from a target group of young people, aged between 15 and 29, begins by providing answers to questions about the extent to which this phenomenon is present in Macedonia, the characteristics of the people who tend to leave the country, the pull factors that attract them to go abroad and the push factors that stimulate them to leave their own country, and the impact of human resource departments on the retention of staff and on recruiting staff back to the country, analyzed on the basis of an additional survey conducted among 10 human resource managers in large Macedonian companies. The Republic of North Macedonia is threatened by serious losses from brain drain that could decrease the human capital of the country and its economic growth. Furthermore, companies' HR department policies about retaining, recruiting, and repatriation of staff and attracting new employees in the economy are underdeveloped and hugely influenced by heavy economic and political factors within the country.*

**Key words:** migrations, brain drain, brain gain, brain circulation, HRM, intellectual capital.

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### 1. INTRODUCTION

This paper studies the brain drain phenomenon and its effect on the development of human resource management (HRM) in the Republic of North Macedonia, because HRM is one of the key departments in any organization. This research generates knowledge about the presence of the brain drain problem by analyzing the interest, reasons, and motivation of young people in the Republic of North Macedonia for going abroad and its impact on the functioning and development of the human resource management system, and determines the role of human resource management in reducing this problem.

The great political, social, and economic changes that emerged from the transition period of the Yugoslav countries to independent national states, the building of their own identity and democratic values, and the direction of entry into the EU were the main reason for conducting a study of young people in these countries in order to measure their attitudes, desires, and expectations as a result of those changes. In the Republic of North Macedonia, such a survey was conducted by the Institute for Sociological, Political and Juridical Research at the University of St. Cyril and Methodius in Skopje in 2013 (Ministry of Education and Science, 2013).

The results of this study and the increased relevance of this issue in recent years spurred the interest

in conducting a new survey, in the period May–June 2017, which is covered in this paper. The aim of this research was not only to determine the reasons, the interest, and the tendency of young people in Macedonia to emigrate to the more developed world, but also to take into account the wide literature on the role and significance of HRM departments in companies in the process of talent management, that is, the importance of the system approach in planning, recruiting, and retaining talent.

In order to determine the situation in the Republic of North Macedonia in relation to the interest in and tendency of young talent to emigrate to the more developed world, the target group of respondents included in the research was youth aged 15 to 29 years—a total of 1400 respondents with different demographic characteristics (sex, nationality, degree of education, type of studies, average success in education, working status, marital status, wealth, etc.). For this purpose, we conducted a questionnaire in which young people gave their opinions and answers. This questionnaire aimed to determine the interest in and the tendency of this category of young people to emigrate and live in the more developed countries of the world, the reasons why this desire and need arise, and which factors attract them to go abroad and which are important for a better life.

Brain drain strongly influences the development of human resource management in the country. The quality of the staff that will be selected and will contribute to improving the economy will depend on this department as one of the key departments in any organization. Furthermore, human resource management should be able to maintain its potentials, again through appropriate implementation of its functions. Therefore, in order to determine the significance and role of human resource departments within companies in the Republic of North Macedonia in the process of reducing or preventing the emigration of qualified workers or potential young talent from the country—i.e., retaining them and encouraging the brain gain phenomenon in the country by reducing brain drain and attracting talent from other countries—and to determine the most effective measures taken by these departments for this purpose, the second target group of respondents that was involved in the re-

search included human resource managers from ten larger companies in Macedonia, for which another survey questionnaire was conducted, consisting of three open-ended questions to which the respondents were asked to express their opinions and views on the extent to which this department is relevant and influences these processes, and which measures, according to them, are the most effective and contribute to the same.

The quantitative research was done by conducting a questionnaire via an electronic service for collecting and analyzing data research, *Kwik Surveys*, and SPSS as a comprehensive software for analyzing data was used for the statistical analysis of the research results. The graphical display is presented with the MS Excel program.

## 2. THEORETICAL BACKGROUND

The process of emigration is perceived as an opportunity to improve individual and family conditions for life. When analyzing emigration, it is very important to point out its consequences and implications on demographic development, as well as its implications on socio-economic development. A number of migration experts have pointed out that countries experiencing emigration are losing the most vital part of the active population (Nikoloski, 2010).

People have a number of opportunities to study, to work, and to live in any country in the world. Thus, migration of highly qualified human capital is probably one of the most important factors that has a key impact on the progress and growth of the national economy. Over time, this phenomenon was first analyzed in the context of brain drain and brain gain, but recently it has been considered more appropriate to identify it as brain circulation. If this process is observed as *brain drain*, the consequences and implications of emigration are numerous and very complex, and manifest most strongly in demographic and economic development. The tendency toward the increase in the emigration of highly skilled staff, as well as of young people of individual faculties, implies changes in the quality of the workforce and a decrease in the level of human capital, and consequently negative effects in the area of economic development of the country and scientific and research

activity. Political leaders in the developing countries are calculating with the brain drain effects, hoping for the short-term benefits of the brain drain phenomenon. Firstly, brain drain reduces the pressure on the domestic labor market, which is useful for politicians in the fight against unemployment. Secondly, the remittances sent by emigrants to their families are often a significant source for covering deficits in the payment system. However, brain drain benefits are short-term and insufficient to compensate for the actual losses of this phenomenon. We can firmly say that migration contributes to a reduction in the overall unemployment of the labor market and a reduction in the surplus of certain staff, but at the same time, the emigration of representatives of professions that are deficient in the labor market, such as doctors, IT engineers, educators, and scientists, deepens the imperfection of the labor market and erodes the human capital of the nation. Furthermore, although the amount of migrants' remittances is significant for the balance of the payment system of developing countries, empirical data indicate that the brains, or highly qualified emigrants, send fewer resources than do lower-skilled emigrants. A very small part of those funds sent out end up in the public sector, and they are not sufficient to compensate for the already incurred domestic costs of education and the development of these immigrants.

The mobility of the highly educated human resources and intellectuals from their home countries is a consequence of "push factors," but, in parallel, there are factors that attract immigrants to more-developed countries, called "pull factors." In terms of countries, the reasons for emigration are mostly related to the social environment in which there is a lack of opportunities, political instability, unfavorable working conditions, low wages, distrust in institutions, economic depression, health risks, etc. In the developed countries, there are numerous opportunities, political stability and freedom, good working conditions, higher wages, higher degrees of employee satisfaction, a developed economy, and better living conditions. Regarding the individual reasons, the existence of family relations and personal preferences are the strongest: the desire to explore new opportunities, ambitions for career advancement, the desire to continue education abroad, etc. As an emigrant country, we must re-

duce the effects of the push factors that encourage young people to leave the country. We should not condemn them for their desire for a better tomorrow, but it is our responsibility to do as much as we can to ensure that we are doing our best to provide that better tomorrow here, in our own country. Different measures are available to us which can be undertaken in order to improve the opportunities of the young people and give them confidence that it is possible to live in a decent manner and to act with dignity in their own country.

All the country's representatives, as well as all other factors (holders of public functions, educators, NGOs, political parties, and media) need to be involved with a variety of active measures to turn brain drain into brain gain and maximize the brain circulation phenomenon, always taking into account the needs of young people as the basis for building this nation.

Brain drain has a serious impact on the development of human resource management in a country, which is one of the key departments in any organization which depends on the quality of the staff that will be selected and which will contribute to the development of the economy in the country. As a result of this process, human resource management systems face a serious problem. First, because highly educated, qualified potential workers leave the country looking for better living conditions, the labor market and organizations lack quality staff. Secondly, these people usually do not come back to the country and are not interested in using their obtained knowledge and experience to stimulate the research and development processes, or the home country's economic growth. If they did, they could contribute to better expertise in the implementation of the HR management functions through the application of international practices, and thus, in the long run, ensure a better quality of the labor supply and development of the country.

Brain drain is also a challenge to human resource management because it encourages focusing on finding new ways and ideas for bringing work closer to international best practices in human resource management, especially in talent management—which is defined as the systematic attraction, identification, development, engagement, retention, and deploy-

ment of those individuals who are of particular value to an organization, either in view of their “high potential” for the future or because they are fulfilling business/operation-critical roles (CIPD, 2015) —and, accordingly, utilizing the positive aspects of emigration of people by creating opportunities to implement their knowledge and experience at home. Human resource management must focus on improving the functions in their domain, starting from a systemic approach in the processes of staff planning and recruitment through the realization of more serious cooperation and partnership between enterprises and educational institutions, as well as career centers, which helps to create potential staff from the period of their education, recognizing the most successful talents and providing them with conditions for their development in their area of study, with the aim of their future employment. In this regard, the talent management approach seeks not only to hire the most qualified and valuable employees but also to put a strong emphasis on their retention. Retaining talent starts with the first point of contact with the candidate. The operational objectives are to provide the necessary environment for employees to be productive and feel committed. A transparent, honest, and fair culture, together with a congruity of values between the organization and the employee, alignment of business and people strategies, adjustment to demographic changes and adjustment to the motivational factors of the workforce will influence the individual’s commitment to and retention in the company (Zeuch, 2016). Not all retention activities need to be punitive; some more-positive ways a company can create stickiness in their staff and can craft interesting retention schemes include (Mondaq, 2011) using total employee compensation components (salary, benefits, bonuses, training, etc.) flexibly to suit employees’ needs, not just a one-size-fits-all approach; designing recognition and reward systems to stimulate employee involvement; using flexible employee benefits to respond to a changing workforce; offering stock options not just to executive staff but also to those who are important to retain; offering time off, sabbaticals, and other forms of nonfinancial employee compensation; providing childcare and/or eldercare; providing employee assistance programs; forming strategic alliances with other companies in order to provide discounts on various purchases; arranging for professional services; funding fitness and

other club memberships; funding professional memberships; making the workplace a fun and happy place to be; and, most importantly, engendering trust in the employees. Employees will find it very hard to leave a company that provides this kind of value proposition.

The migration of highly educated and professional staff, as was mentioned previously, has recently been considered more appropriate to identify with the process of brain circulation. A number of scientists (Biao, 2005; Chacko, 2007; Daugeliene, 2007; DeVoretz, 2002; Gaillard, Gaillard, 1997; Helpman, 2004; Kuznetsov, 2006; Lee, 2008; Saxenian, 2005; Saxenian, 2002; Teffera, 2004; Tung, 2008; Vertovec, 2007; Yun-Chung, 2007; Zweig, 2008) confirmed that brain circulation is a vital process for the development of the economy in a country and pointed to the need to accumulate highly qualified human resources. According to Yun-Chung (2007), the brain circulation phenomenon emphasizes the two-way flow of qualified workers between home and host countries, highlighting the positive aspects and benefits of exchanging knowledge, talent, and innovation. Certain measures can be implemented to minimize the negative impact of brain drain and replace brain drain with brain circulation.

In the case of Macedonia, the number of young highly qualified people and of students in the last years of the faculties of technical and natural sciences who are planning to live abroad is growing (National Strategy 2013-2020). According to recent data from the World Bank, 29.1% of the highly educated people of Macedonia live and work abroad, and the total percentage of emigrants is 21.9% (World Bank, 2011).

As young and talented people become more aware of the deepening of the political crisis and the unstable economic situation in the country, which are slowing the key processes related to the economy and employment, there is a growing number of those who most often find themselves outside the borders of Macedonia. The brain drain trend is the outcome of this situation which creates the loss of the most important intellectual capital of the country. Increasing the opportunities and professional development of young talents in the country is crucial for their retention. Hence, it is of particular importance to em-

phasize the role and significance of human resources departments in companies that can significantly influence the retention of young talents and potential professionals, entrepreneurs, and intellectuals in the country through the application of appropriate measures and policies. Companies in Macedonia use certain strategies and policies to retain talent in the organizations, but do not have a developed strategy for attracting them back to the country (i.e., to the company), nor to attract staff from other countries.

In order to investigate the subject and this problem, we set the following hypotheses:

*Hypothesis 1:* The brain drain from the Republic of Macedonia is a serious threat to the total intellectual capital of the country.

*Hypothesis 2:* The five most important factors that contribute to the brain drain from the Republic of North Macedonia are low wages, unemployment, insufficient employment opportunities by professions, distrust in institutions, and political instability.

*Hypothesis 3:* The human resource departments in companies in the Republic of North Macedonia still do not play a major role in preventing brain drain through the practices of retaining professional staff in the country.

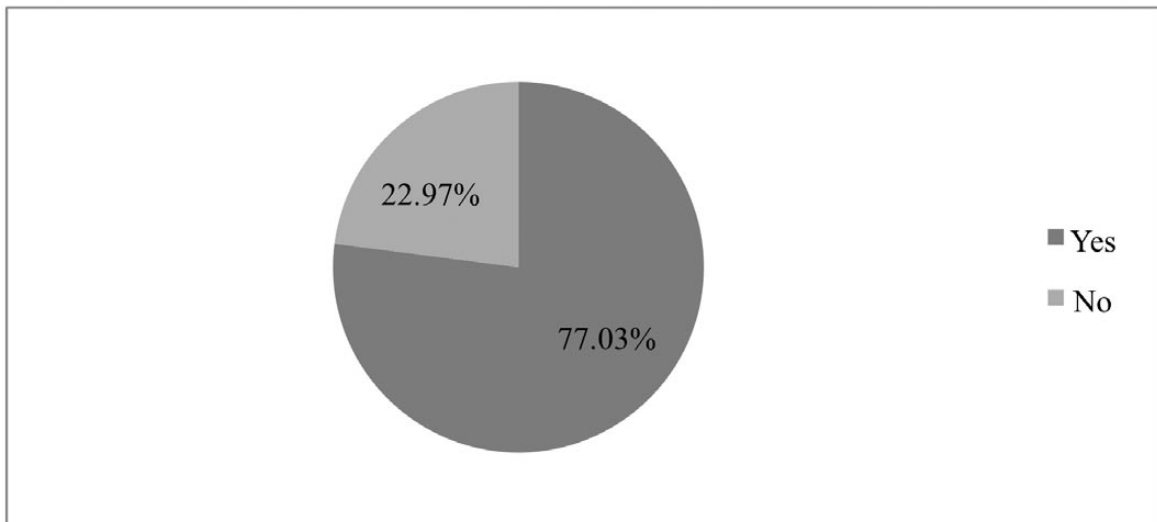
### 3. RESULTS

The key issue within this statistical analysis is the question of determining the tendency and interest of young people aged 15 to 29 in temporarily or permanently migrating abroad. Of the 1380 respondents who responded to the questionnaire, 1063 respondents, or 77.03%, would leave Macedonia and would go abroad, whereas the rest (22.97%) would remain in the country (Figure 1).

The distribution of respondents according to their demographic characteristics was characterized by a domination of female respondents (65.13%) compared to male respondents (34.87%); most of the respondents were Macedonians by ethnicity (94.55%) and from the Skopje region (68.05%) who came from urban areas (87.59%); 49.53% of the respondents were in a relationship; 69.36% still lived with their parents and had family property (72.27%); 63.72% had a great relationship and understanding with their families; and 61.28% were classified as people with a good financial status.

The most important demographic characteristics for testing the first hypothesis are age (42.95% were between 20 and 24 years old, versus 32.61% between 15 and 19 and 24.44% between 25 to 29), degree of education and type of studies (49.25% had secondary education and 42.95% had higher

Figure 1: Distribution of respondents according to their tendency to leave Macedonia and live abroad, all respondents (%)



education; 43.70% of respondents studied social sciences), average success (42.86% had average success of 4–5/9–10, 29.14% had very good success of 3–4/8–9, 23.03% had good success of 2–3/7–8, and 4.98% had satisfactory and low success of 1–2/6–7), and working status (57.34% were full-time employees; 5.37% were part-time employees; and 20.34% were unemployed, either with insufficient employment opportunities or with insufficient employment opportunities by profession).

Based on these findings, and in particular the fact that 42.86% of the respondents who were interested in leaving the country had average success (4–5/9–10), the first hypothesis is proved, i.e., the brain drain from the Republic of North Macedonia is a serious threat to the total intellectual capital of the country.

The survey also determined the reasons why they would leave the country (push factors), i.e., the reasons that they find attractive in developed countries (pull factors).

According to the respondents, push factors that had a major influence on the stimulation of the brain drain from the Republic of North Macedonia, ranked on a scale from 1 to 3, where 1 signifies no effect and 3 signifies a great influence, were low or insufficient salary in the country, unfavorable economic situation, insufficient opportunities for career advancement, insufficient employment opportuni-

ties, insufficient employment opportunities by profession, and political instability (Figure 2).

These findings confirm the second hypothesis that the five most important factors that contribute to the brain drain from the Republic of North Macedonia are low wages, unemployment, insufficient employment opportunities by profession, distrust in institutions, and political instability, with a slight deviation which occurs in distrust in the institutions, which was not ranked as a factor that had a major influence on the brain drain, but still had a significant value of 2.31, or moderate influence. Distrust in the institutions stems from the presence of insufficiently professional and competent staff, poor communication, and lack of kindness and efficiency.

It is also important to take into account the factors that attract young people to migrate to more-developed countries, i.e., the pull factors. The following pull factors had a major influence on the decisions of young people to go abroad: better pay, a better standard of living, greater employment opportunities, greater opportunities for career advancement, better-quality education, gaining more experience, and better economic and political stability (Figure 3).

To test the third hypothesis, that the human resource departments in companies in the Republic of North Macedonia still do not play a major role in preventing brain drain through the practices of retaining

Figure 2: Ranking of the 12 push factors according to their degree of influence (mean value)

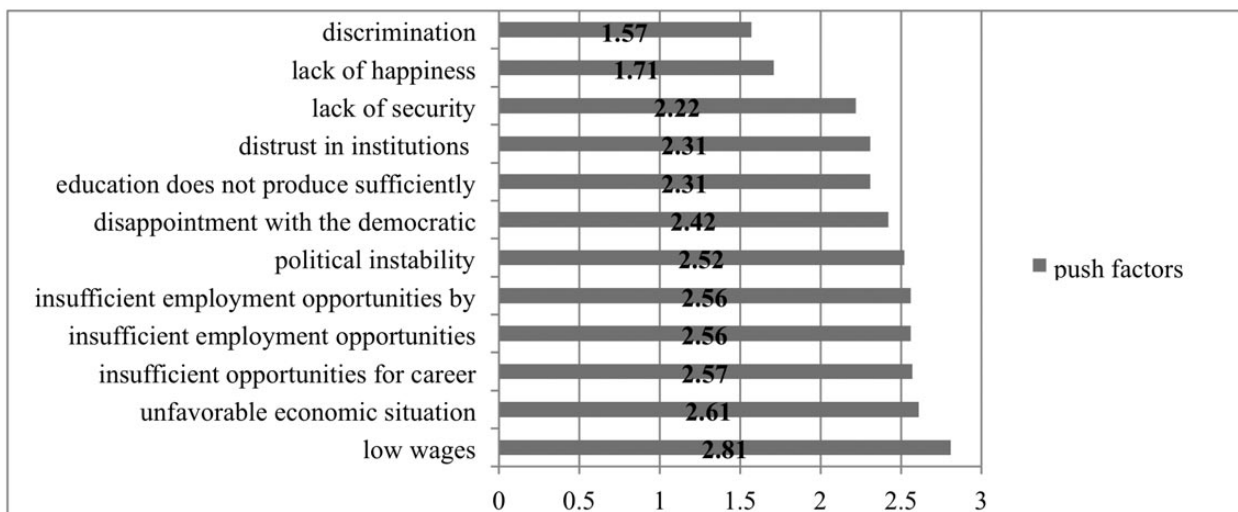
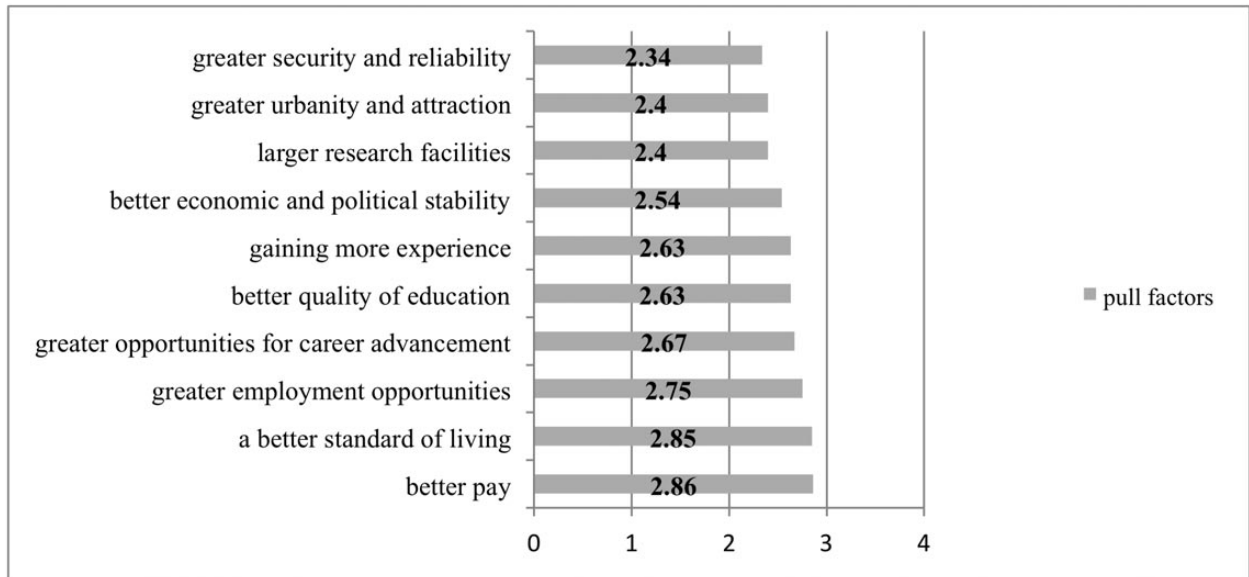


Figure 3: Ranking of the 10 pull factors according to their degree of influence (mean value)



professional staff in the country. (i.e., that companies use certain strategies and policies to retain talent in the organizations, but do not have a developed strategy for attracting them back to the country nor to attract staff from other countries), we conducted an additional questionnaire with open-ended questions in order to get exhaustive explanations about the role of HRM departments in the processes of retaining or attracting back the talent.

Responses to the first question, “What is your opinion on the role of HRM in the companies for retaining the talents in the country?” indicated that human resources departments in companies in Macedonia do not have a very harmonized picture of their own role in retaining talents in the country. Most of these departments have no retention strategy at all; some consider that they have some role, but that it is not of crucial importance, because the working conditions are the reason for retaining the staff, but the human resources departments in Macedonia still do not have a direct impact on the working conditions in most companies.

In larger companies with foreign capital, the impact of human resources on staff retention is of paramount importance, and their employment policies and employee treatment are the initial factors that attract professional staff, whereas the retention

factors are the recruitment process and selection; the treatment of employees; performance management; and talent management, development, and training. However, what a company is able to do to keep talent in the country is limited. They think that no matter how much they try to make systems of talent management and performance, to adequately value the employees, to develop and reward them, to pay them correctly according to our standard, and to allow them the use of all the benefits, those who leave often go to foreign countries because of the better pay for the same work and because of the better quality of life. In order to keep the talent in the country, what is needed is a systematic approach which implies a close connection between education and companies, institutions, and authorities. Much needs to be done to improve the quality of education and its connection with the economy, to work on the awareness of young people and their parents for the selection of appropriate education that will satisfy the needs of industry, and to develop policies and strategies for the development of the economy that will contribute to opening new and better jobs. Without these changes, no suitable results can be expected. If these companies follow the example of parent companies, the human resources departments in Macedonia will follow a more sophisticated and more successful policy based on talent management.

All respondents believed that HRM in the public sector does not have a working concept—there are no activities for retaining competent staff; there are no tools and tactics because the laws are rigid; and these departments complicate more than facilitate actions for recognition, respect, development, and retention of the employees. Even if they want to retain their staff, there seems to be a lack of clear legal mechanisms, ways, and criteria for rewarding and advancement, or there are still no fair procedures based on political or friendly grounds.

From this it can be concluded that in Macedonia, human resources departments still do not play a major role in retaining employees in companies, there is a lack of a more serious plan and strategy, and these departments have no greater influence in the companies.

Regarding the second question, “What are the most effective HRM policies and strategies for retaining the best employees in companies?” most often it is considered that salaries in accordance with European standards, benefits, bonus systems, continuous training and advancement, respect for employees’ rights, and extension through collective agreements are the most important HRM strategies. According to the responses of the managers of HRM departments, the existence and maintenance of these processes does not guarantee the provision of conditions for employee retention. To that end, organizations should have developed and implemented a specific policy or strategy for employee retention, in which, according to HRM processes, the leadership styles, managerial practices, measurable benchmarks for comparison with competition (for example, for reward policy and salaries), and desired organizational culture will be clearly defined. The retention strategy will set clear limits for each manager in terms of how much an employee will be allowed to actively decide or provide career development in which good employees will be able to progress and to earn more, without being inevitably appointed to management positions.

HRM in companies with foreign capital thinks that everything starts with carefully selected staff, which in order to be retained need to be included in the system for training and development of employees according to organizational needs, taking into consideration their plans for personal and pro-

fessional development. Furthermore, to build a coherent system that can support both the development of the company and the development of employees, it is necessary to build a system of performance and talent to monitor the performance of employees and properly evaluate and identify talent and work on their professional development in a transparent manner. In addition, it is necessary to develop systems for motivation and reward, i.e., wages and benefits, respectively (financial and non-financial benefits). The most effective are those policies and strategies that support investments for employee development and evaluation.

A number of HR managers believed that the answer lies with the top manager. If the top management is of the opinion that “everyone is replaceable,” then HRM’s attempts to introduce modern practices that are not productive are in vain, and this department needs to negotiate with the top management. The appropriate strategy for talent management includes performance management; rewarding tools; opportunities for expression and realization of developmental solutions; creation of individual development plans for these employees; opportunities for lateral growth in systematization; and learning and development, professional development, and so on. In addition, the role of coaching is emphasized as assistance and support in the development of these employees, which will clearly define the future challenge and goals, and a way to motivate for their fulfillment.

#### 4. DISCOUSSION AND CONCLUSION

The phenomenon of brain drain and brain gain causes great mobility and significant population changes across the globe. Today in Macedonia, migrations have become a youthful trend and a challenge for change, not only at the economic level, but also a change in life in general. Macedonia faces a serious brain drain threat: 77.03% of respondents have firm stances to permanently leave the country, which equates to loss of intellectual potential and loss of future skilled workers and entrepreneurs. This is a huge number of young people, and it poses a great danger to the aging of the population in the country, and a risk to the economic potential and economic development of the country, especially if the continuity of migration lasts for a long time.



Through the analysis of demographic data issues, we presented an excellent overview and description of the profile of those leaving the country. Young people aged 20 to 24 years, women, ethnic Macedonians, mostly from the Skopje region, usually students or who have completed secondary or higher education, are most likely to leave the country. Those who leave are more likely to have achieved great success in education, are generally not married and still live with their parents and are in good financial condition. These data create the profile of immigrants as people with positive family relations and relationships, with achieved competencies and intelligence, declared as successful people, creators and brains in their own country, and who will be a boon to the economy and social life in another country.

The research also determined the push factors that have an impact on young peoples' decisions to leave the country. Of the stated reasons, the highest ranked were low wages, unemployment, insufficient employment opportunities by profession, distrust in institutions, and political instability. The pull factors that attract young people to migrate to more developed countries, were better pay, better living standards, greater employment opportunities, greater opportunities for career advancement, better education, gaining more experience, and better economic and political stability.

Based on policies, measures, and strategies that are widely covered in the talent management literature, that is, to retain talent as the most important part of that process, as well as to attract talent, explained in the theoretical background, the data on the capacities and tactics of human resources departments for retention, attracting talent back, or attracting new employees in the economy of the Republic of North Macedonia indicate a partial role, which means that HRM departments are not still strong enough to decide and implement policies for retaining and attracting talent, because it depends on many economic and political factors in the country.

Staff moving to multinationals is perceived as a positive trend in the deployment of talent in subsidiaries in other countries by some HRM departments. Organizations are implementing some HRM

strategies, but they do not have the power to attract the employees back to the country, except for staff sent overseas for a certain period to gain experience and advanced technical skills. The results for attracting staff from other countries are very scarce; there are almost no positive examples of employing people from other countries, perhaps only those who open their own businesses in Macedonia.

Based on the presented results of the research, but also on the basis of personal expertise and continuous monitoring of the brain drain process from the country, a number of effective measures and activities at different levels of influence can be proposed in order to reduce this problem and achieve a higher rate of talent retention. Macro-level (public institutions) activities are of a great importance in the process of creating a youth-focused society and putting the role of young people at the center of attention when creating state policies; consistent implementation of the national and strategic priorities set out in a number of strategic documents that address young people; continuous anticipation of the deficient professions in the country and in the organizations at the moment and in the near future; precise definition of "the brains" for the development of the country; creating the Macedonian counterpart of the European Youth Guarantee, in which European leaders committed in 2013 providing to all people in the EU under 25 years during the first four months after completing the formal education system or from the moment they enter the category of unemployed (even if not formally registered in that category in the national employment agency) with a concrete offer of 1) a workplace; 2) a continuing education, practice, and training program (appropriate to their profession and the real needs of employers in the labor market); or 3) serious opportunities and assistance in establishing and operating their start-up businesses.

In the case of the Republic of North Macedonia, due to resource constraints, such a Guarantee could refer to 1) the best 25% of young graduates (according to strictly defined criteria on which the triple helix—Universities, the business sector, and government bodies—would agree), and 2) the scarce staff in the country (identified through research that would be repeated every 2–3 years on the level of the whole country), which in the first

year after graduation would have received a concrete offer of one of the three aforementioned alternatives; the creation of youth think tanks (with free and uninterrupted engagement of young people) in which the intellectual potential would be engaged in solving the important problems of the country and for which they would receive certain financial benefits, as well as recognizing their significant role in society; terminal extension and deepening of the opportunities for youth practice and their more serious implementation and treatment by all social stakeholders; greater openness of public institutions to implement student practice; and creating a national network of large business incubators and business centers with a solid business infrastructure within universities. This needs to have a serious budget and capacity sufficient to support 500–1,000 small businesses and entrepreneurial ideas providing a full or significant subsidy to their business expenses in the first three years of operation. Under very favorable conditions, loans would be provided for working capital and for financial leasing for the purchase of technology, production or agricultural machinery and equipment; and legally regulated promotion and encouragement of part-time work and flexible working hours in most companies, and strengthening of work-from-home opportunities.

Meso-level (education, chambers of commerce, employers' organizations, business sector, youth organizations, employment agencies) activities can be realized through continuous examination of the needs in the labor market for the purpose of completing the educational policies; affirmation of entrepreneurship and entrepreneurial culture among the youngest; greater use of the potential of alumni networks and career centers by higher education institutions; improving the conditions and opportunities for internships for students; strengthening the role of virtual enterprises (especially in the educational institutions) as a place for developing the business skills of young people which would help them to acquire the concrete practical experiences needed for employment, and to overcome the fear of failure or ignorance when opening their own businesses; opening spin-off enterprises (enterprises founded by researchers at the university in order to promote and apply in practice the results

of their research); and introducing a new practice according to which the professional papers and/or graduate work that students prepare should be exclusively based on the knowledge and experience they will acquire in practice in the particular company or institution.

The measures to reduce or prevent the brain drain taken on a micro-plan relate firstly to individuals and their responsibility for personal and professional development through the use of opportunities in society and through active youth action in order to record their qualities in society. Furthermore, there are already some practices of involving educators from all levels of education in training in entrepreneurial education in order to stimulate entrepreneurial awareness of young people, but they are still short-term oriented and without a strong vision for their further functioning. In addition, the family is a decisive factor in molding the personality of a child, in the formation of his or her working habits and behavior through the independence of children from the youngest age, encouraging creative thinking, enabling trials and mistakes, etc.

Fortunately, the brain drain is a dynamic phenomenon, and its direction and intensity can be significantly changed through honest, serious, and selfless efforts of all social stakeholders. In this direction, well-designed measures for the preservation of human capital in the country and their consistent implementation in practice could turn this trend of brain drain into a successful brain circulation in Macedonia in a period of 5–10 years.

## EXTENDED SUMMARY / IZVLEČEK

Raziskava preučuje intenzivnost pojava bega možganov na področju Republike Severne Makedonije. Osredotoča se tako pozitivne kot negativne učinke pojava ter njegove vplive na razvoj kadrovskega managementa, ki je eden ključnih področij v vsaki organizaciji. Raziskava, ki vključuje 1400 sodelujočih iz ciljne skupine mladih, starih med 15 in 29 leti, se osredotoča na stopnjo prisotnosti tega pojava v Makedoniji; na lastnosti posameznikov, ki se odločajo za odhod iz države; na razloge za odhod v tujino; na ukrepe kadrovskih oddelkov za preprečevanje bega možganov ter ukrepe, s katerimi spodbujajo posameznike k vrnitvi v domovino. Omenjene dejavnike so avtorji analizirali na podlagi dodatne raziskave, ki je bila opravljena med 10 vodji kadrovskih oddelkov v večjih makedonskih podjetjih. Zaradi bega možganov je Republika Severna Makedonija izpostavljena resnim izgubam, ki bi lahko vplivale na znižanje človeškega kapitala in gospodarske rasti države. Različne politike in ukrepi kadrovskih oddelkov na področju privabljanja, zadržanja in vračanja zaposlenih v domovino so še v procesu razvijanja ter posledično pod velikim vplivom oteževalnih gospodarskih in političnih dejavnikov znotraj države.

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