

UNIVERSITY OF DEBRECEN
CENTRE FOR AGRICULTURAL SCIENCES
FACULTY OF AGRICULTURAL ECONOMICS AND RURAL DEVELOPMENT
DEPARTMENT OF MANAGEMENT STUDIES

DOCTORAL SCHOOL OF MULTI-DISCIPLINARY SOCIAL SCIENCES
Director: **Prof. Gábor Szabó, DSc**

PhD Thesis

**HUMAN RESOURCE MANAGEMENT OPPORTUNITIES
IN THE AGRICULTURAL SECTOR**

Submitted by:

Márta Piros Zalai

Supervisor:

Csaba Berde, PhD
Associate Professor

DEBRECEN
2002

INTRODUCTION

The human factor has been reassessed with regard to strategic initiatives, in obtaining and preserving a competitive advantage. Knowledge, experience, special skills are a specific form of capital, part of the organisations' assets and an organisational strategic resource. Their development and operations are rather expensive and require major investments both on the part of the individual and the organisation. In Europe, during the European integration, the quality of human resources enjoys priority among our really important values and specific features. The establishment of a new consumer-servicing society has increased the part played by human resources compared to natural resources. The management of a company or enterprise has to rely on four kinds of resources: financial assets, the market, production technologies and the human resources. Today human resources are at least as important from the point of view of success of the company as the other three factors. In this country, decisive social and economic restructuring has been going on over the past ten years. The changes had a major effect on the agrarian sector as well. The processes of restructuring, which are still in progress, are characteristic of our agriculture and have a great effect on the human capital as well as raising high expectations. Most co-operatives, state farms and the majority of the agricultural processing industry were restructured during the process of privatisation and compensation. Different forms of private ownership and business enterprises were established and gained momentum side by side with state and co-operative ownership forms. Formerly well managed large companies were split after the restructuring into a number of small units which were difficult to manage. As long as agriculture operated in the form of large companies it was enough if a player was skilled in part of the business. The sale of products was performed by a different company specialised in the field, and foreign trade was centrally managed. It was not expected of an agricultural expert to be a professional manager in terms of selling the goods produced. The situation changed when small companies and private enterprises were established. An agricultural expert has to be his own trader, a well informed foreign trade specialist, if he wants to sell his produce favourably. As a result, the demand for the new type of manager, who can negotiate, has good communication skills and is sensitive to problems and creative and innovative at the same time has appeared as well as the demand for effective management of qualified human resources. In the current situation of the agrarian industry, the efficient use of human resource management can be a break-out point for the future. The new management methods that can be used in the field, more effective and faster training opportunities, already exist in the financial industry and they can and have to be adjusted or adopted to meet the requirements of the agriculture or they will

have to be developed further. Knowledge of both fields has outlined the selection of my topic and my objectives. My paper intends to meet that requirement by reviewing and analysing the opportunities of human resource management with the objective that it should find its place in the basic and extension training system of the higher educational institutions of the agricultural sector. It is not only important for young graduates to further develop their abilities and the skills required to perform a given task, but also for those experts who have been employed for several years in private companies or business enterprises. Continuous improvement of their personality and updating their knowledge all the time is of key importance for all of them. The situation is the same in Western Europe and the United States, where the continuous updating of the knowledge of operational business management has long traditions.

The opportunities of the coming period can be utilised, agricultural economic organisations can survive and can increase their organisational effectiveness, if they possess a basis of human capital, which is able to perform a shift in perspective and behaviour, which is of primary importance from the point of view of incorporating market mechanisms and implementing them in practice. My investigation covered micro-, small- and medium-size agricultural organisations, because, in my opinion, the companies belonging to the sector illustrate well the effect that the lack of investment into the human capital, or its insufficient effectiveness have had on our economy. The top managers leading those enterprises play a key part in the former, because it is their approach that basically defines how modern management techniques are implemented in practice. Therefore I only asked top managers to contribute to my interviews.

Main Objectives

I intended to analyse human resource management tasks in agricultural business organisations (status and future trends).

Partial Objectives:

- Introduction of human resource management.
- Measuring the effectiveness of labour sources.
- Introduction of management expectations.
- Measurement of the effectiveness of training incentives.
- Introduction of in-company and external training methods and their evaluation.
- Introduction and analysis of views relating to performance evaluation.

- Introduction of the practice and special features of human resource management at micro-, small and medium-size enterprises and at companies operating with different profitability.
- Setting out a method that is suitable to be used for the comparison of the labour force of different companies with different qualifications and their evaluation by their qualifications.

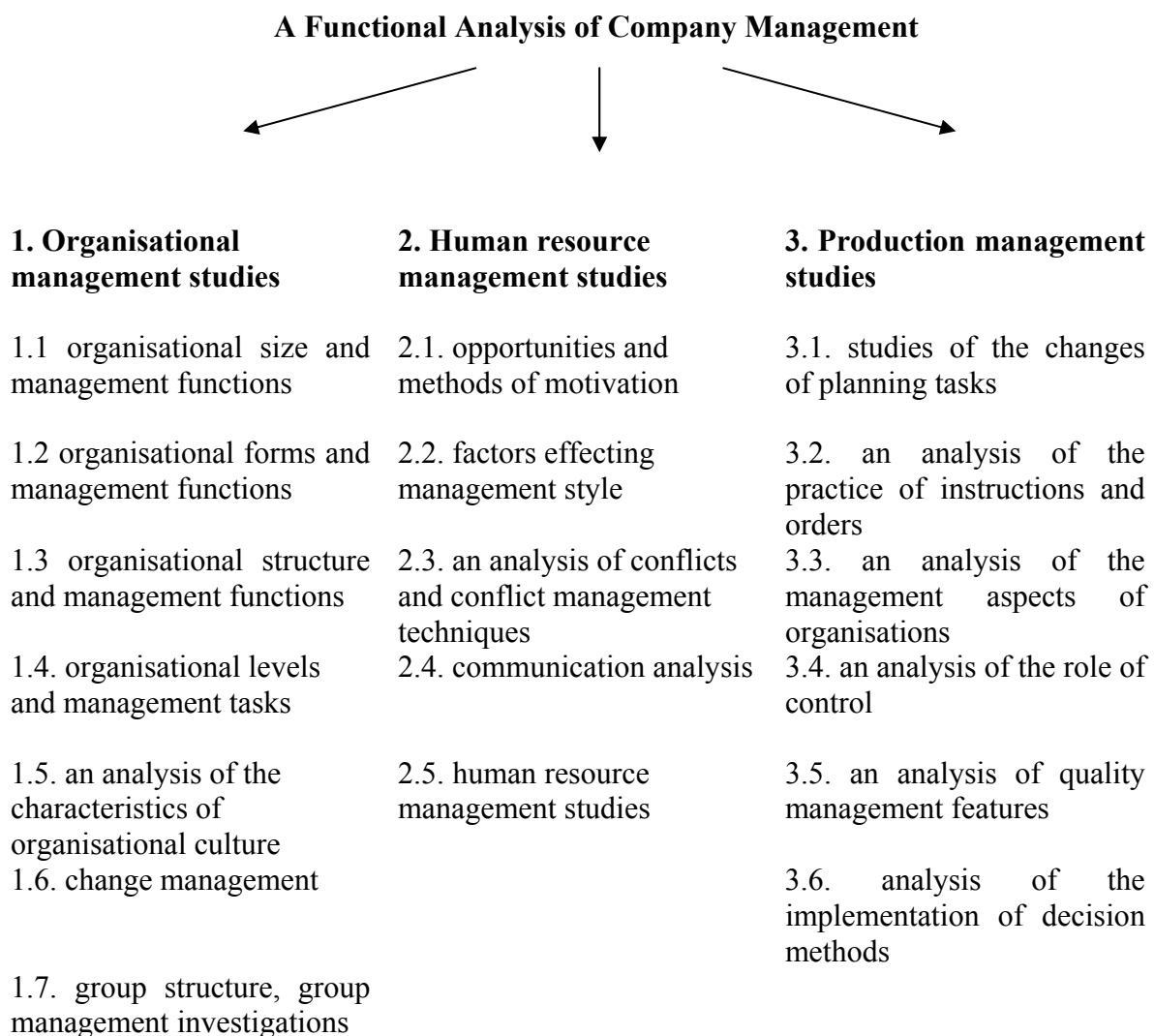
Final goal:

It is my final goal that, after reviewing and analysing my findings, I can set out such proposals and come to such conclusions, which can contribute to the development of human resource management in agricultural enterprises, and can improve their operations. I also intend to provide research findings to be used in promoting the basic- and extension training system of higher educational institutions in the agrarian sector.

METHODOLOGY

My investigations were carried out as part of a research programme entitled “A Functional Analysis of Company Management” set out by the University of Debrecen, Department of Management Studies, (BERDE, 2000) linked to the sub-topic entitled “Human Resource Management”. The research programme was divided into topics and sub-topics as follows (figure 1.)

Figure 1.: The structure of the research programme



Source: BERDE (2000)

The above research method is characterised by a mosaic-like hierarchy of partial research topics. The results of individual partial topics can be incorporated and built in the investigation of larger and larger fields. Another important factor of the system is that time

scales ensure a similar structure of layer by layer. The research findings of the year can be analysed and evaluated independently and conclusions can be drawn from them. The research of a topic is continuous in time. Annual research findings can be repeated in time intervals set by us, for instance, in every fifth year or every tenth year, to evaluate and analyse them in a comprehensive way. In this way, the variations of the management problems studied can be described in their process. The method can be well applied for the investigation of continuous changes of management problems, and to introduce the effects of changes in the economic, social and market conditions on management and organisational issues. My sub-topic was the analysis of human resource management.

In my research, progressing from general characteristics towards special and typical features, I reviewed the international and the Hungarian technical literature relevant to my topic; surveyed corporate level analyses dealing with the issues of human resource management that play a major part in the profitable operations of enterprises.

I consider the enterprises surveyed to be components of their environment while having their own, specific internal systems.

Taking into consideration my research and work opportunities, it was decided that I would focus in my investigations to the customers of OTP-Garancia Biztosító Rt., which are agricultural organisations, i.e. they are engaged in agriculture, forestry, hunting or fishing and are not private entrepreneurs. They represent the basic multitude of the research, 2,800 business enterprises. Private entrepreneurs were omitted from the scope of the business organisations studied, because many parts and processes of human resource management cannot be implemented for them. Graphically the basic multitude covers the whole area of Hungary.

Sample taking took place by simple random selection, its type being the mechanical (systematic) sample taking following the guidelines of CSEH-SZOMBATI et. al. (1971 "a"): 600 items. The processed sample included 89 agricultural organisations, about 3.2% of the basic multitude.

The selection of the method of data collection depends first of all on the topic, the size of the study and the unit to be studied. Based on the guidance of CSEH-SZOMBATI et.al., 1971, "b" I based my studies on questionnaire interviews and company figures. Top managers of enterprises took part in the questionnaire interviews, who are competent in the questions asked and, depending on the size of their organisation, take part in human resource management processes themselves. The system of data collection applied consists of three parts: the interview, a „general data collector” and the data identifying interviewees. The questions of the interview investigate the current practice of human resource management and

the goals it intends to achieve in the future systematically in 9 main groups and in 98 sub-groups of questions. In the first group of questions of general data I collected, in 16 questions, general data relating to the agricultural organisation, then the next 8 questions looked at human resource management and another 8 questions relate to the top manager giving the interview.

The main groups of questions of the interview cover the following topics:

- The importance of human resource management tasks
- Analysis of in-company and external labour sources on the basis of their effectiveness
- Analysis of expectations of the labour force by their importance
- Analysis of training incentives
- Analysis of in-company training forms on basis of their efficiency
- External (off-site) training forms on the basis of their efficiency
- Ranking methods and opportunities supporting individual development on the basis of their efficiency
- Ranking performance evaluation methods currently applied and to be applied in the future on the basis of their efficiency.
- Evaluation of performance assessment statements on the basis of their importance.

Interview questions relate to some tasks linked to human resource management: planning and staff management, job profile setting, planning and analysis, the provision of labour, provision of resources (recruitment, selection) and also to the tasks related to an optimum application and development of the employees in their workplace, their motivation and job satisfaction: profile evaluation, training motivation, performance evaluation, development of human resources, training, career support, health protection, the mitigation of stress, programmes promoting a renewal of labour and a computer-aided human resource information system. A separate interview has been compiled for each sub-topic: tasks of human resource management, labour sources and expectations, training motivation, training opportunities, career investigations and performance evaluation. In each question the factors were provided that were to be ranked by the managers by their importance, effect or effectiveness. (1 - sufficient, 2 – partly sufficient, 3 - medium, 4 – quite satisfactory, 5– very satisfactory.) The same ranking could be given to several answers or in case a manager had no experience or never applied a given function in practice, he could score zero in the answer. The questions of a topic have been worded in such way that the managers could describe in their answers the current practice, the forms applied and what they intend to achieve in the future in the area covered. There were questions, among other, where I asked the interviewee to give his opinion and evaluation both of managerial and subordinate jobs.

The data collected during the interviews were processed in four stages based on the guidance of technical literature. I checked the questionnaires, then I prepared a coding, a tabling, and finally I compiled the tables illustrating my findings. As I checked the answers, I wanted to find out if all questions had been answered or I also checked if the answers were clear. After checking consistency I completed coding, i.e. I divided the replies given to the questions in sensible categories. I tried to define each category as accurately as possible so that I would be able to express the key correlations meeting the objectives of the research. The controlled and coded data were summarised in tables. Due to the nature of the data, mechanical tabling was applied.

Several kinds of mathematical-statistical methods were used for evaluation.

The following methods were used to process the three parts of data collected:

- 9 main groups of questions of the interviews, analysing the current practice and future goals of human resource management, were processed group by group. Mathematical averages were used to set the mean value of the scores given on a scale of 1 to 5 on the values of answers about the present and the future. Parallel to that, distribution and priority analysis were also carried out.
- In the interviews, managers' expectations regarding the future also appear side by side with questions relating to the current practice of human resource management. I used the Student-type one-sample T-test to select the significant differences of the averages of the answers given to the questions relating to future expectations and the averages of the answers given to questions relating to the current practice, which had the same content, based on the guidance of (VARGHA, 2000 "a"; SVÁB, 1967 "a"). This method is the most suitable if we want to compare the averages of groups belonging together (answers to the same question regarding the present and the future). Another reason why I used the one-sample T-test was that I had a quantitative variable of normal distribution and I had assumed that its value level was going to increase significantly for future-related compared to present-related answers. On evaluation, values of $P < 0.05$ was considered significant result.
- In my research, I applied the software SPSS 10.0, which, using all data relating to the present and future, calculated the mean value of the difference between the two variables, its distribution, standard error and confidence interval, further, given a certain degree of freedom, it provided the significance level of the difference between the two variables based on the calculated T-value. The critical value of the T-test ($P = 5\%$) and the $SzD_{P5\%}$ is provided in line with SVÁB (1967 "a").

- The general data sheet of the questionnaires consisting of two parts: company data and information relating to human resource management at a given company, was analysed question by question. Depending on the nature of questions, I used either mathematical averages or distribution analysis and also divided the answers into groups for analysis.
- Data sheets of respondent top managers were also analysed similarly to the general data sheets of the questionnaires so that those data could also be used for characterising the organisations included in the study.
- It was also my goal to carry out an analysis to indicate whether there were differences between the answers given to the 9 groups of questions on human resource management in the groups of the organisations studied created by different points of view (by the indicators characterising company management, those characterising their human resource management or those characterising the top manager).
- It was also my objective to find out if there was significant difference in the behaviour of the above groups in terms of human resource management. In that case the averages of the groups belonging to the same point of view were compared by the best method to find differences, the one-view independent sample variance analysis (VARGHA, 2000 “b”, KERÉKGYÁRTÓNÉ and MUNDRUCZÓ, 1989, HUNYADI et al., 2001 “a”, HAJDU et al., 1994 “a”). Variance analysis is of one-view only, because I grouped the independent samples by one view alone, the grouping variable applied. A one-view independent variance analysis could be carried out based on normality and distribution homogeneity analyses. On evaluation, $P < 0.05$ only was considered significant.
- For statistical analysis, the software SPSS 10.0 was used again. The software, using available data, calculated the value of F and set a significance level by means of a suitable degree of freedom. The critical value of the F test ($P = 5\%$) and the value of $SzD_{P5\%}$ is reported in line with SVÁB (1967 “c”).
- In order to carry out my analysis I created variables grouped by different characteristics of the agricultural organisations: profitability, size of the organisation, the age of the managers and their qualifications.
- It was also my goal to present if there was statistical “co-movement” in terms of certain variables, i.e. if there was any connection (either positive or negative) between them. The total distribution of the variables analysed indicated normal distribution.
- I was trying to reveal a relationship between variables created from the characteristic features of the organisations and variables created in the field of human resource

management activities. Since I was investigating a linear relationship between two, non-ordinal variables, I used the significance analysis of the Pearson-type experimental correlation coefficient to reveal correlations (VARGHA, 2000 “c”, HAJDU et al., 1994 “b”, HUNYADI et al., 2001 “b”).

- The software SPSS 10.00 was used for statistical analysis. The reliability of the r-value was rated compared to the tabled values of relating to critical r-values (FISHER and YATES, 1967 in SVÁB “c”).
- Analysing the point diagram of the relationships between variables I found that relationships were linear in all cases. To test my findings, I fitted different functions to point diagrams and, in the cases analysed, linear functions fitted the data best.
- Variables generated from company characteristics were the following: sales, organisational size (number of employees), organisational profile (agricultural, commercial, services), total number of training hours, average training costs per employee.
- On evaluating my findings, I only considered the number of components and the Pearson-type “r” value. Values of $P < 0.05$ were considered significant only.

The method of establishing and implementing qualification parameters

During my research I investigated if there was a correlation between the human resource management practice applied with agricultural organisations and the qualification of the people employed there. In order to achieve my goal, I needed a quantitative indicator, which could characterise the qualification of the employees of an organisation well. Since there is no indicator or methodology in the current practice, which would be suitable for me, I developed a what I termed „qualification indicator” which reflects the „value” of the employees of agricultural companies from the perspective of qualification based on the experience of their top managers. Employees with secondary comprehensive maturity exam were taken for a “qualification base”, i.e. 1, and other qualifications were compared to that. In order to define the latter I completed separate investigations among agricultural experts taking part in the study, who were in top managerial positions. The interviewees could give scores of 0 to 3 to school qualifications from the perspective of operational success. I fixed the value of secondary comprehensive school maturity exams, it was score 1. Qualifications were divided into the following levels: university, college, secondary comprehensive school maturity exam (score 1), vocational secondary school maturity exam, vocational school, elementary school and no qualification. I received assessable replies from eighty companies from which,

calculating the mathematical average of the groups, I received a so-called „qualification eigen-value” the value of each type of qualification. Then I reclassified the formerly used seven levels of qualifications into four levels identifying their value by the mathematical average of the relevant figures. The sum of the multiples of qualification eigen-value and the number of the groups created by qualifications resulted in the so termed „qualification total value”.

Based on the above, a qualification indicator can be calculated as follows:

$$\text{Qualification indicator} = \frac{\text{Qualification total value}}{\text{total number of employees}}$$

The indicator is a weighted mathematical average, in which the relevant weights are represented by the agricultural sectoral values of individual qualifications. The indicator reflects the value of the total number of employees at organisational level, which can be compared to the qualification indicators of other companies, but a sectoral indicator can also be established by the above method, which will identify a qualification level (sectoral qualification indicator) for all people employed in agriculture. Qualification indicators can be used by themselves for the comparison of different agricultural organisations. Next, with help of correlation calculations and variance analysis, I was trying to find a correlation between qualification indicators and the current practice of human resource management with the organisations that formed the basic multitude of my research.

MAJOR FINDINGS OF THE PAPER

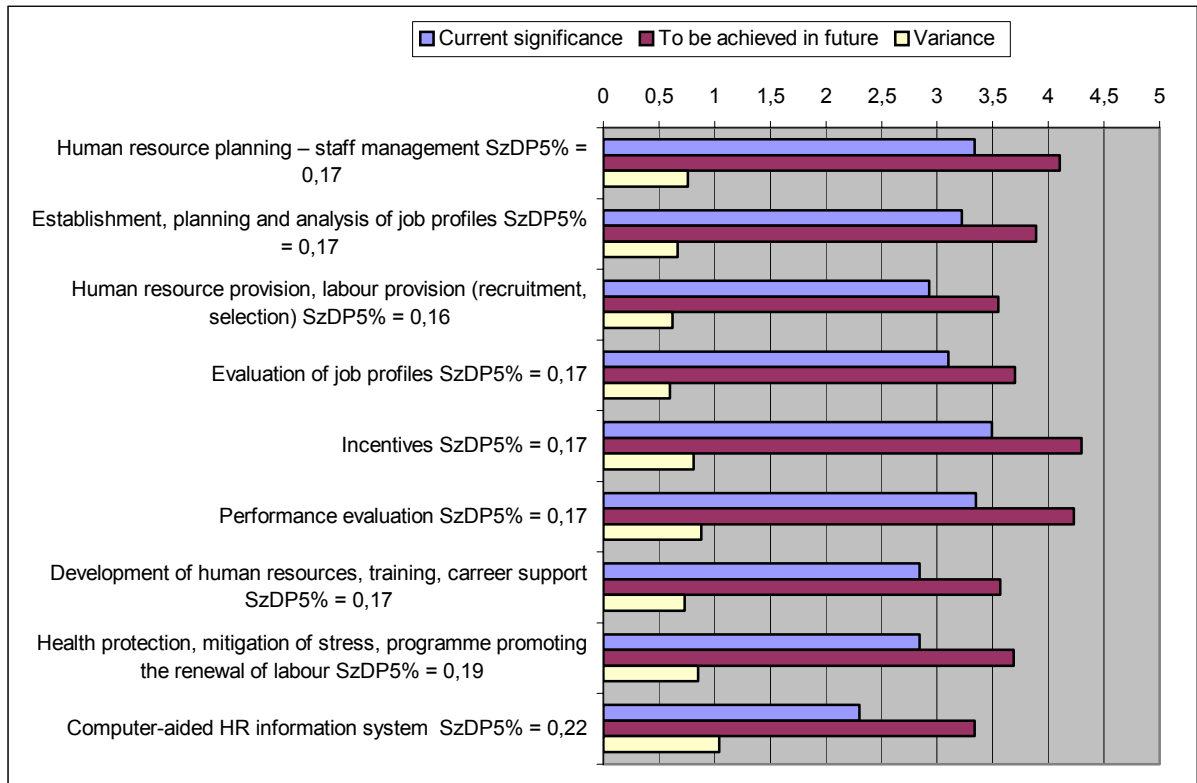
The analysis of the tasks of Human Resource Management (EEG)

Human resource management is directed to attracting, retaining, motivating and utilising labour. The same work process can be successful or unsuccessful – given the same conditions – depending on who performs it. Therefore, human resource management related tasks require a lot of attention when enterprises are planned, established and operated. The process and model of human resource management has specific meaning in the agricultural sector, since those tasks are entirely different within a family enterprise and a shareholding company engaged in complex business activities covering a large geographical area. Based on my research – Figure 2. – I have found that the functions and tasks of human resource management are given low or medium significance in the operation of economic organisations. The tasks of human resource planning – staff management, establishment of job profiles, incentives and the evaluation of employee performance were given 15% higher scores on average within the functions studied.

Of all the EEG functions, computer aided human resource information system received the lowest score from the perspective of its current significance. Managers expressed higher expectations for the future in terms of all human resource management tasks and they considered individual functions to gain in importance. Compared to the present situation, the tasks related to a more optimal use and development of the employees in their workplaces received higher scores with regard to their importance (incentives, performance evaluation). 80 % of the managers considered incentives the most important. Based on the difference of present and future scores, the most important need / intention of change is the establishment and operation of a human resource information system.

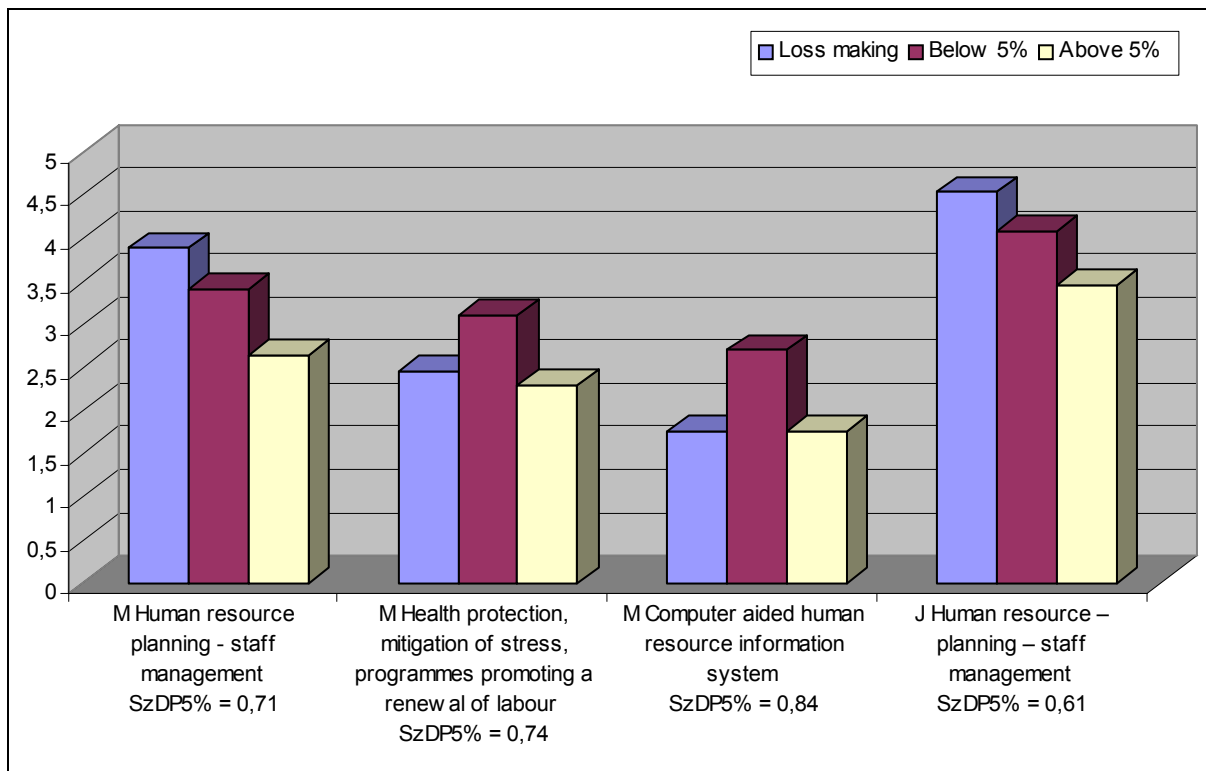
I applied the following classification in profit rate studies: loss making agricultural organisations, those with a profit rate below 5% and those with a profit rate above 5%. Based on my findings I could state that loss making companies expressed powerful development requirements. I emphasised the factors where differences could be mathematically verified and I presented my findings in Figure 3.

Figure 2.: Changes in the significance of Human Resource Management tasks



Source: own data

Figure 3.: Differences of the analysis of EEG tasks by their profitability



Source: own data

(M = present; J = future)

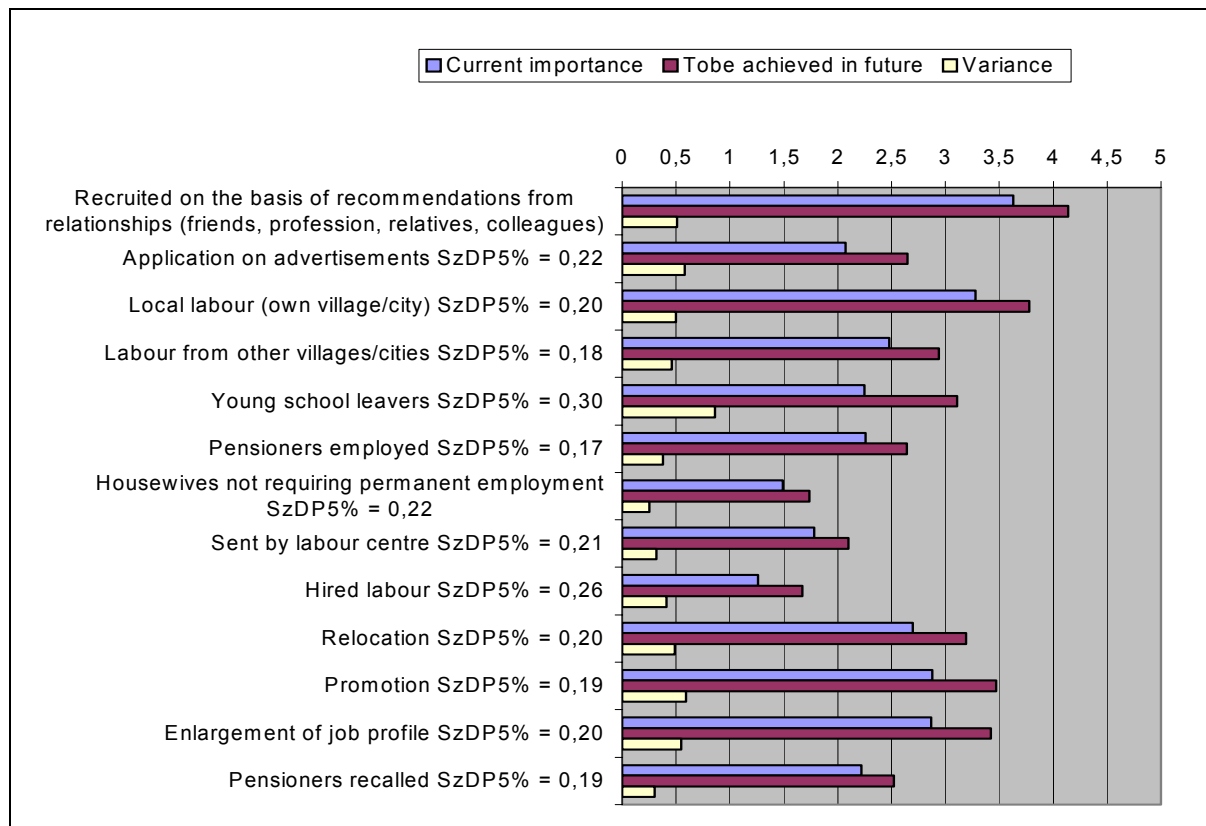
Managers characterised the current staff management functions by a high score. In the future staff management is expected to be considered an emphatic area both for loss making companies and for the other organisational groups studied. There is a significant correlation between the groups divided by profit rate and health protection, mitigation of stress and programmes promoting a renewal of labour. Opinions relating to computer aided human resource information systems also represented significant results between the individual groups. The hypothesis has been significantly verified, that the higher sales are in a company, the more important it is for company managers to improve the quality of human resources.

Analysis of the effectiveness of labour sources

Human resources are the most valuable assets of an enterprise because companies operate and control all the other assets by means of them. Human resource planning and provision focuses on meeting the requirement of the appropriate number and composition of labour for the appropriate jobs, for the appropriate time either internally or externally. It was my objective with my analysis of effectiveness of managerial and subordinate labour sources to qualify the current practice of searching for external and internal labour and to outline development trends for the future. The first series of investigations analysed the methods of recruitment of managers and their effectiveness. Figure 4. illustrates well the opinion of managers regarding a summarised classification of managerial labour sources. The average of the replies given by the managers regarding current effectiveness was from 1.26 to 3.63. Most important labour sources today include recruitment from external sources on the basis of relationships (3.63); searching for and preference of local labour (3.28); and promotion of internal labour forces (2.88). The highest demand for change can be seen in terms of the employment of young school leavers and promotion from subordinate jobs to managerial positions. Figure 5. illustrates the current and expected effectiveness of labour forces related to subordinates. The average of the replies with regard to current practice is from 1.52 to 3.51. There is a wide range of classification from ineffective to quite effective. There is considerably difference between the lowest and highest values, which unambiguously divides individual labour source opportunities from the point of view of their effectiveness. The most effective labour sources include employment of local labour of external sources (3.54); recruitment on the basis of relationships and recommendations (3.21); promotion of internal resources (2.88). Managers qualify the opportunity of hired labour of external resources as either ineffective or partly

effective (1.52); and the same holds for the employment of housewives who do not require permanent employment of internal sources (1.77); or the use of advertisements (2.12).

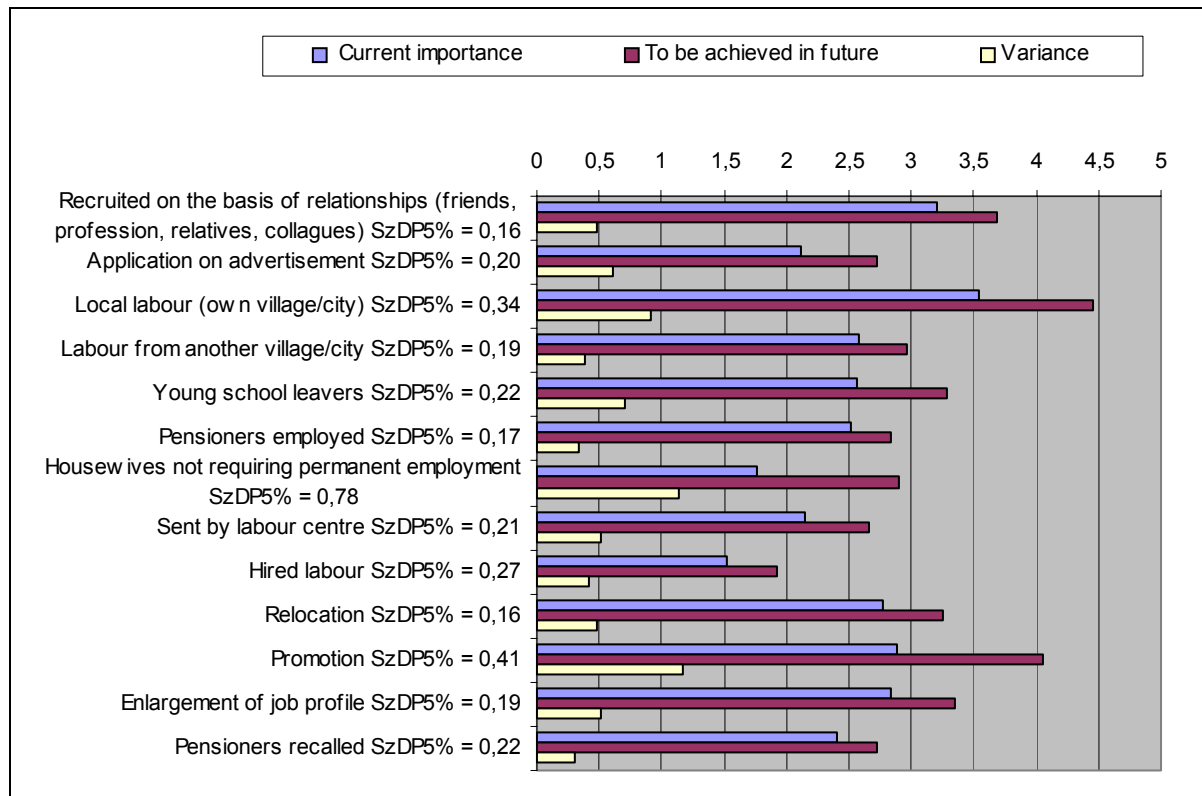
Figure 4.: Changes in the importance of managerial labour sources



Source: own data

Analysing Figure 5, an order can be identified, which represents the variance with regard to the evaluation of labour sources (the lower white-coloured lying rectangle). The order ranging from the largest variance to the lowest in terms of demand is the following: promotion, employment of housewives, employment of local labour, employment of young school leavers, recruitment of applicants to advertisements, employment of labour sent by the labour centre, enlargement of job profiles, recruitment on the basis of relationships, relocation to another job, hired labour, employment from other settlements, employment of pensioners and pensioners recalled.

Figure 5.: Change in the importance of labour sources for subordinates



Source: own data

Analysis of expectations

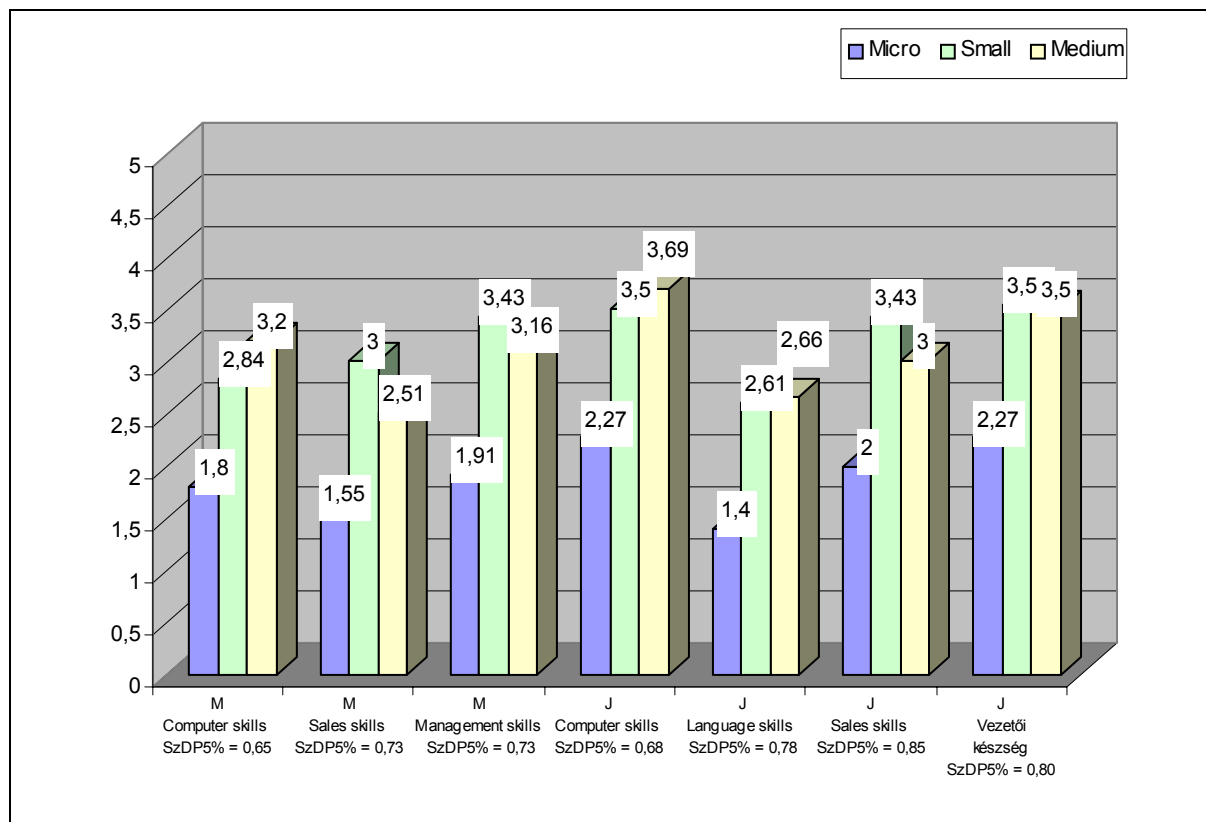
Company management expressed its requirements in terms of labour to fill certain jobs and positions in order to achieve the strategic objectives of the company. It is important to investigate if expectations of labour force change as a result of increasing globalisation effect or as a result of external and internal variations and if so in what directions. I studied how top managers, based on their own experience, classify the expectations of labour from the perspective of their importance in the present and in the future. I intend to present the findings of an investigation.

I separately studied the issue in my paper regarding the differences of expectations of subordinates expressed by their managers, depending on the size of organisations. The differences are decisive from the point of view of the training forms and incentives employed by company managers in different organisations. Both current practice and future expectations illustrate that human resource management must be operated differently in a micro organisation. Figure 7. presents significant findings of a correlation analysis by the size of organisations.

The importance related to computer skills shows significant variance. it is lowest with micro enterprises (1.80) and highest with medium-size enterprises (3.20). The same rate has

remained for the future as well. Sales skills of subordinates also shows a low value for micro organisations, which was significantly verified for the future (2.00). Managerial skills are less important for subordinates with micro enterprises (1.91) while it is more important with small enterprises (3.43). Top managers of the companies expect their employees to improve their managerial skills in future, but the expectation is still low compared to small- and medium size enterprises (2.27), which difference was verified significantly. The language skills of subordinates are the least important for the managers of micro organisations (1.4).

Figure 6: Differences of expectations of subordinates by the size of the organisation



Source: own data

(M= present, J= future)

Analysis of training incentives

It is a priority interest of companies to utilise human resources as much as possible. The form and effectiveness of the utilisation of labour largely depends on how much the manager of the company and the human resource management area support and encourage labour to develop individually and work more efficiently – as far as the size of the company justifies and allows. Effective incentive methods have to be set out and operated. Training incentives will have to play an important part in the future. Of my findings, I want to point out the results related to

the training incentives in terms of subordinates in current practice, analysing managers' replies on the profitability of the companies they managed. Profitability analyses illustrate that there is a major difference of opinion regarding individual factors in the replies given by managers of loss making companies. I have found the most striking differences in terms of two factors – with companies operating at a different rate of effectiveness – performance and bonuses applied jointly, and the application of material incentives depending on the quality of work. In the current practice, those incentives are first of all applied by loss making companies. Individual values illustrate that successful companies (profitability above 5%) apply several forms of incentives. Further investigations should be conducted to analyse the efficiency of those factors.

Analysis of training opportunities

Human resource management has to promote that the labour force of an enterprise has the qualifications, knowledge and skills that are necessary to meet their responsibilities, and they should update their skills to meet increased requirements. The objective of improvement and education of the human resources is to improve the skills and capabilities of subordinates. I studied training forms that are internal and external to the organisation by their effectiveness related to managers and subordinates.

Analysis of the effectiveness of internal training forms

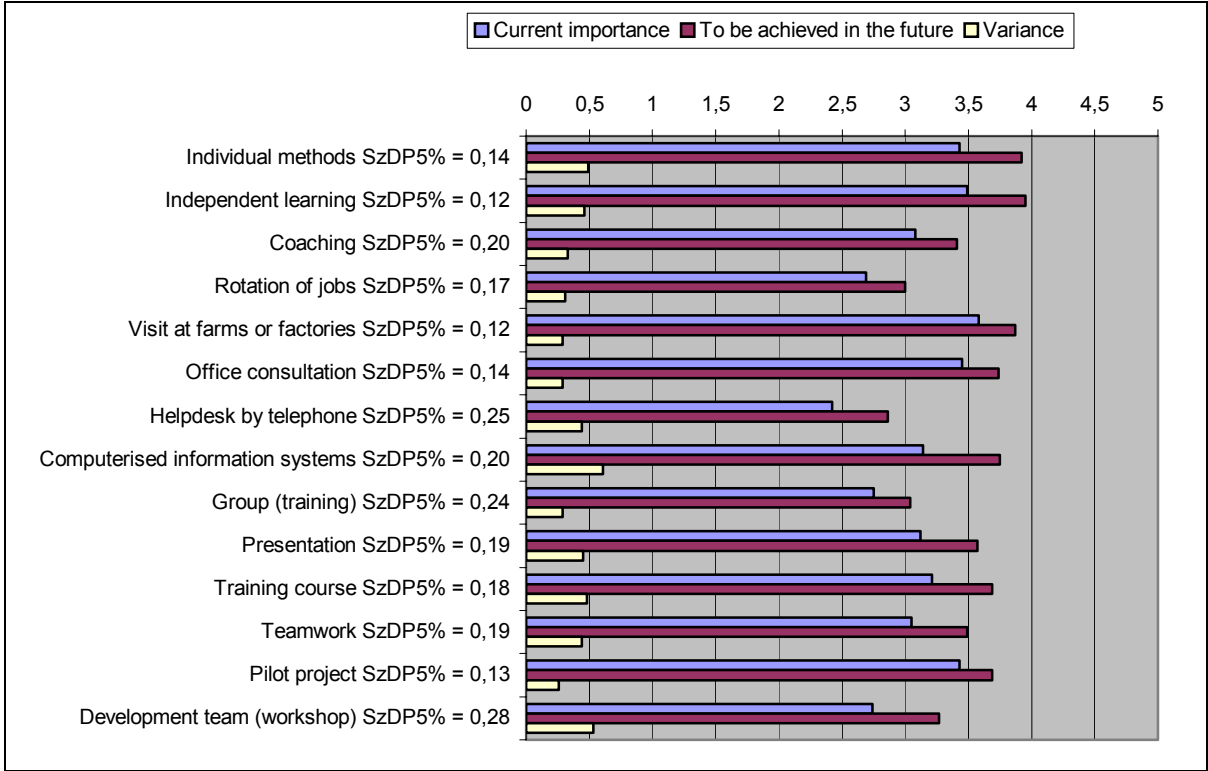
Two partial investigations are presented here: the changes in importance of internal training forms of managers and subordinates. With regard to the training of managers, I have found that top managers of the organisations studied currently consider factory visits, individual learning, consultations and individual methods to be effective and prefer experimental learning. With regard to the future, top managers expect their direct managers to engage in independent individual learning.

It can be seen (Figure 7.) that this objective can be partly achieved by means of electronic information carriers. Fast and effective training methods have to be established for agrarian organisations to meet the expectation of fast and effective acquisition of information.

The scores given by managers regarding the future considerably exceed the average scores characterising the current practice. There is an obvious demand for change; managers intend management training to play a larger role in the future.

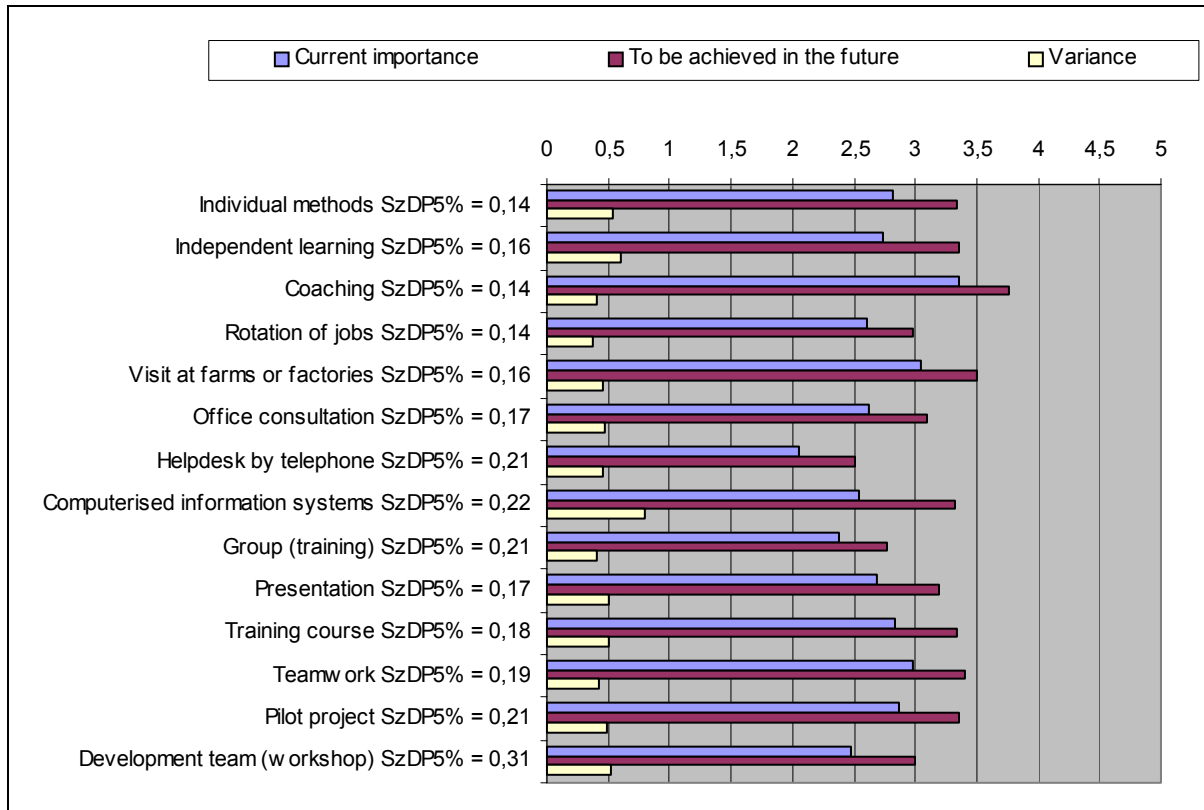
With regard to subordinates, top managers of the companies considered the importance and efficiency of training standards low, based on the current practice. They expressed a preference for coaching, factory visits, group learning, pilot projects and training courses. Managers gave higher scores to trainings regarding the future with reference to individual training forms, but no major shift or emphasis could be found. Figure 8. illustrates the demand for change. I have to underline two methods that will be demanded by agricultural managers or their training courses in terms of their teaching materials and methodology. The improvement of the methodology of individual learning and electronic education and information transfer are significant.

Figure 7: The importance and changes of internal training forms of managers



Source: own data

Figure 8: The importance and change of internal training forms of subordinates



Source: own data

Analysis of the efficiency of external training forms.

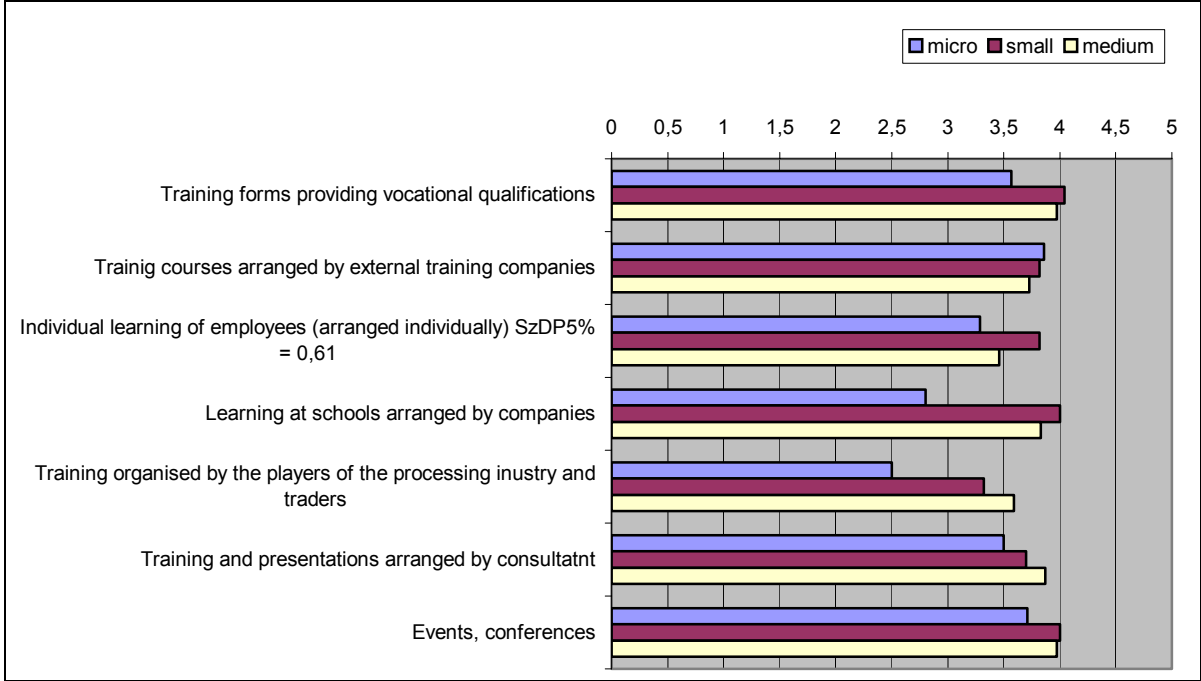
It was significantly verified that the views and opinions of managers of micro- small and medium-size enterprises is different in terms of external forms of training. It was also significantly verified that training courses organised by the companies are considered effective by small enterprises, while micro-enterprises hardly favour that form of training (SzDP5% = 0.66).

I have found that, due to differences resulting from the size of the enterprises, the training and extension training of managers cannot be conducted in the same way at organisations of different sizes. This statement raises a demand that separate training programme offers have to be developed for micro-, small- and medium-size companies.

Figure 9 suggests that managers of 55 years of age or older prefer those external forms of training that offer management qualifications. In addition, they also prefer training courses organised by the company. Scores given by managers who were younger than 39 suggest that they want to attend technical events and training courses organised by external training companies. They gave much lower score to any other forms of training than their elder colleagues. With a significance level of $P < 0.05$ it can be stated that there is significant

difference between the views of managers belonging to different age groups in terms of forms of subordinates' individual learning. This has been significantly verified for the present as well.

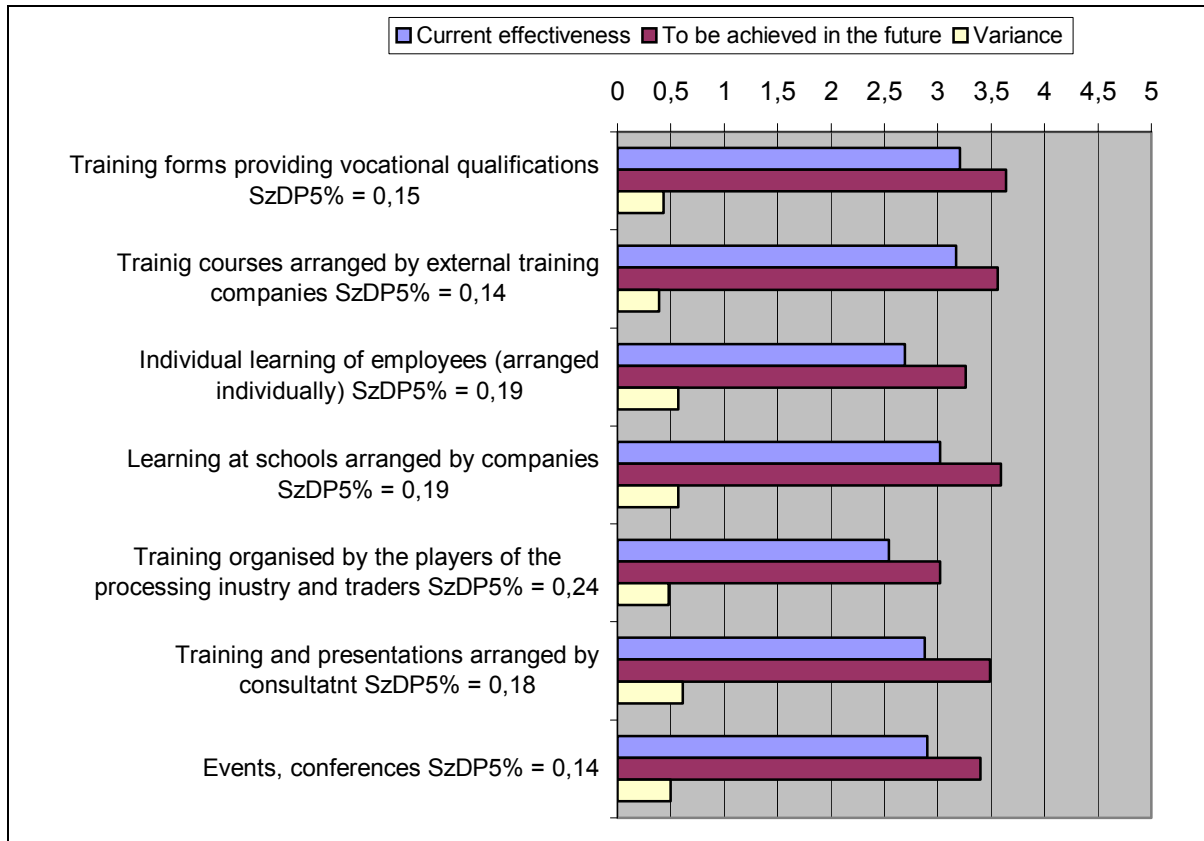
Figure 9 : Analysis of external training forms by the age of company managers (future)



Source: own data

Figure 10. illustrates the importance and changes of external training of subordinates. We can see that managers gave higher scores for all training forms, which reflects their intention that such types of training should play more important part in the future. Managers evaluated external training forms to be of medium value for their subordinates. Training courses providing vocational skills are considered the most effective, while trainings offered by consultants or buyers are considered least effective.

Figure 10 : Importance and change of external training forms of subordinates



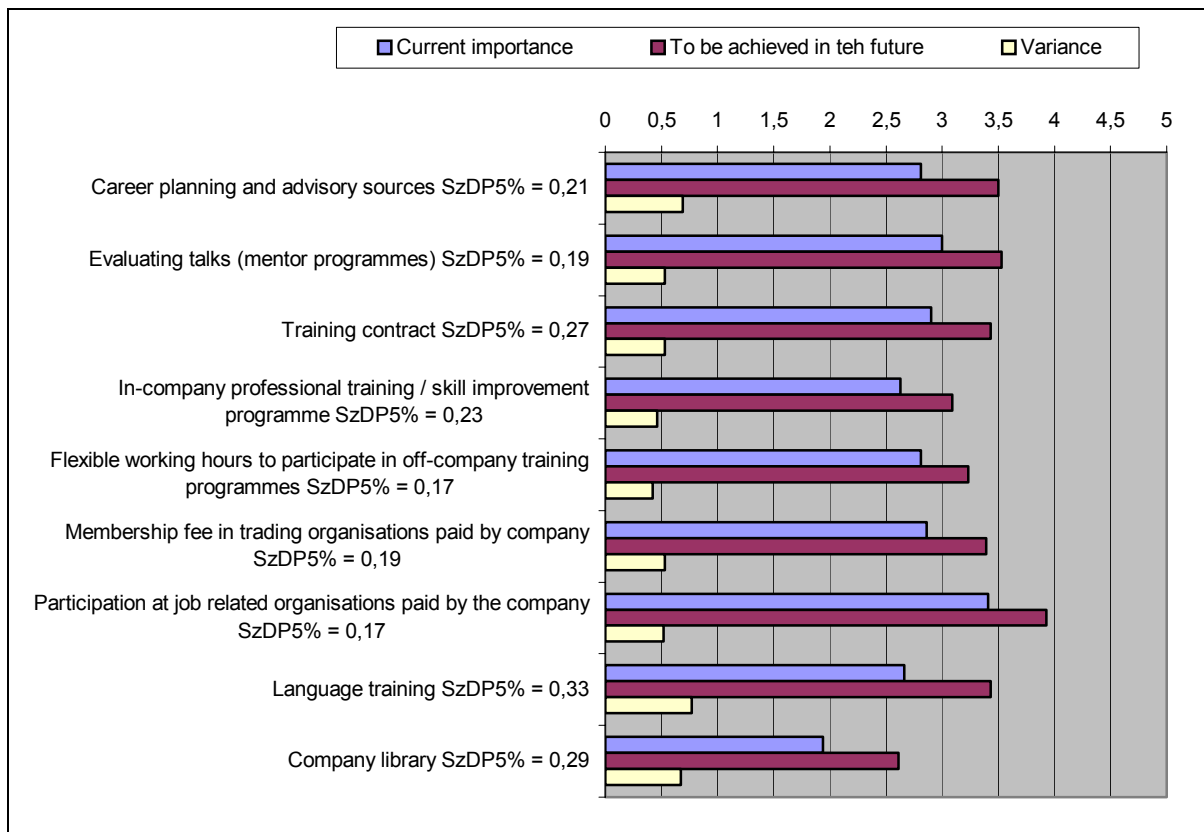
Source: own data

Career studies

Organisations need an evaluation programme, that allows an objective evaluation of their employees, and it can be the basis of promotions, higher wages or other material benefits. Changes in the methods supporting individual development of the managers is presented in Figure 11.

Based on Figure 11, I have found that top managers consider conferences paid by the company, mentor programmes and training contracts linked to supporting extension training to be the most effective methods supporting management in the current practice. With regard to the future, there is no major change in ranking, while career planning and consultation is expected to gain in importance. Managers presented a major intention for change in the areas of language training, consultation and the operation of company libraries. Such demand corresponds to the efforts to increase the importance of self education of managers in the future.

Figure 11: The effectiveness and changes of methods promoting individual development of managers



Source: own data

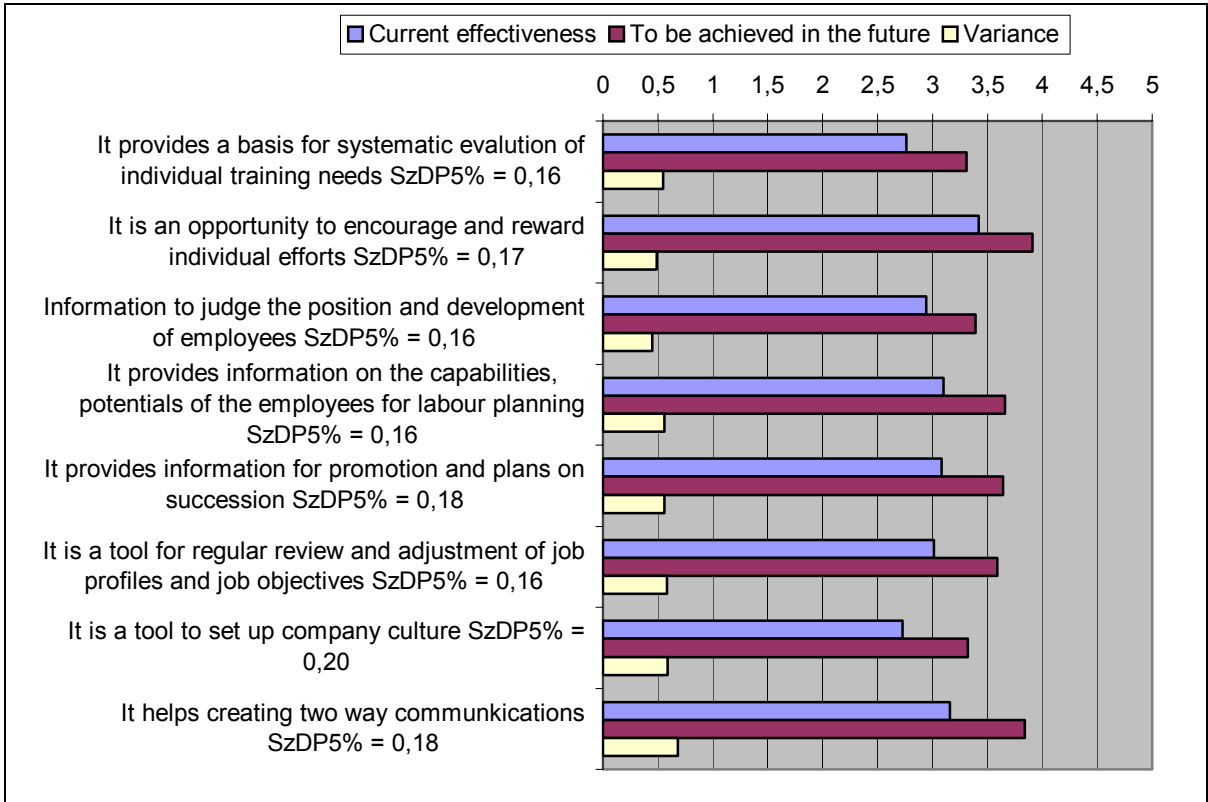
Performance evaluation studies

Performance evaluation of employees is a system, which allows continuous evaluation of the employees with the objective to provide management with unambiguous directions in terms of setting wages, bonuses and other benefits. It should also inform employees about the company assessing their work, it also allows setting the correct measure of incentives, it helps to make decisions relating to internal relocation of labour and it can assist in outlining development and training needs.

Based on my findings, I report on the statements of top managers regarding performance evaluation, their importance and introduce the methods and their changes relating to the topic, which were classified by the top managers. Based on Figure 12, I have found that performance evaluation is most important because the information received about the employees allows managers to encourage and reward individual efforts and also establishes two way communications between management and employees. Rating of the statements points out that managers underline the importance of incentives in motivating their employees

to work more effectively. The statements regarding the future illustrate that the part played by performance evaluation is expected, based on average scores, to increase in the human resource management practice of the companies, however, no major change is expected in the order of importance. The opinions on the extent of change show that managers want to use the opportunity of performance evaluation to improve two way communications in their companies and they intend to improve company culture as well.

Figure 12: The importance of statements relating to performance evaluation and their changes

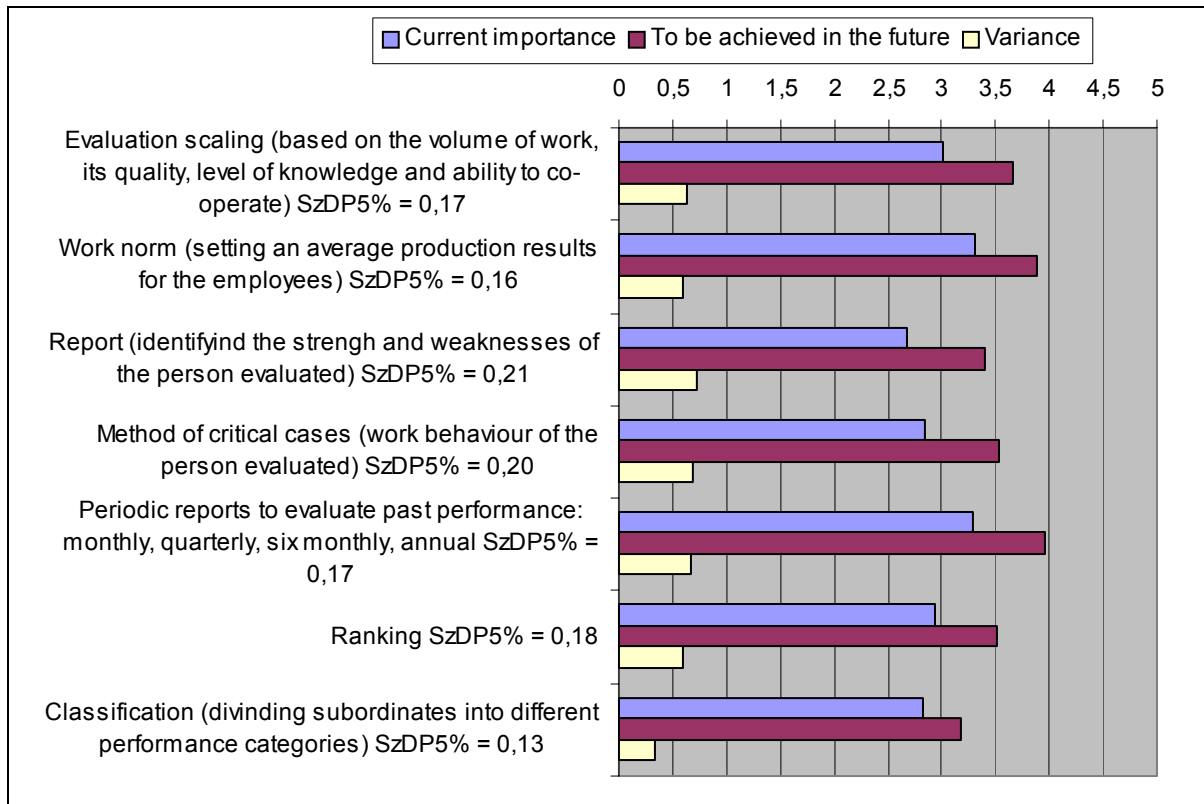


Source: own data

By analysing the methods of performance evaluation, it was my objective to describe correlations regarding the effectiveness of the current methods and their improvement in future. It can be seen in Figure 13., that currently in the agriculture, at the companies studied, managers considered work norms setting to be the most effective performance evaluation method as well as the evaluation of past performance. In terms of the future, there is no major change regarding priority of the methods. Increased scores reflect that managers consider performance evaluation important. They think individual methods of evaluation are more important, i. e. evaluation methods relating to a number of people at the same time are

considered less effective. The correlation is illustrated by the white rectangle expressing the variance in Figure 13.

Figure 13: The effectiveness of performance evaluation methods and their changes



Source: own data

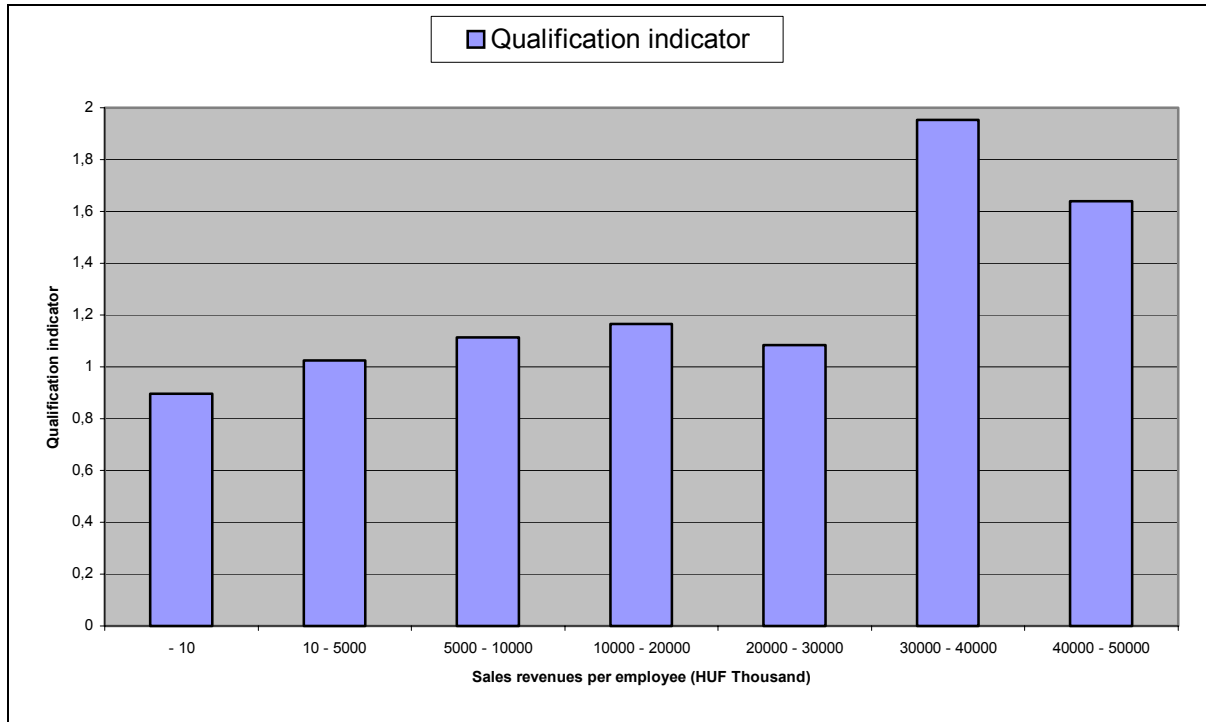
Qualification analysis

Based on a qualification indicator calculated individually for each company, I concluded comparative analysis of the indicator obtained and the business characteristics of a given company. Based on my findings, I can introduce the result of three analyses. Figure 14 reflects that there is a positive correlation between the two variables studied. Based on the findings of the correlation analysis, a weak correlation can be seen between the qualification indicator and sales income per capita, which is significantly verified ($r = 0.249$; $n = 78$).

It can be seen from figure 15 that there is a positive correlation between the qualification of the top managers and the qualification indicators of companies, i.e. the higher a manager is qualified, the higher is the qualification indicator of the company he manages, i.e. the qualification of its employees. This has not been significantly verified. Based on my findings presented on Figure 16, I have found that the higher qualification indicator of micro-

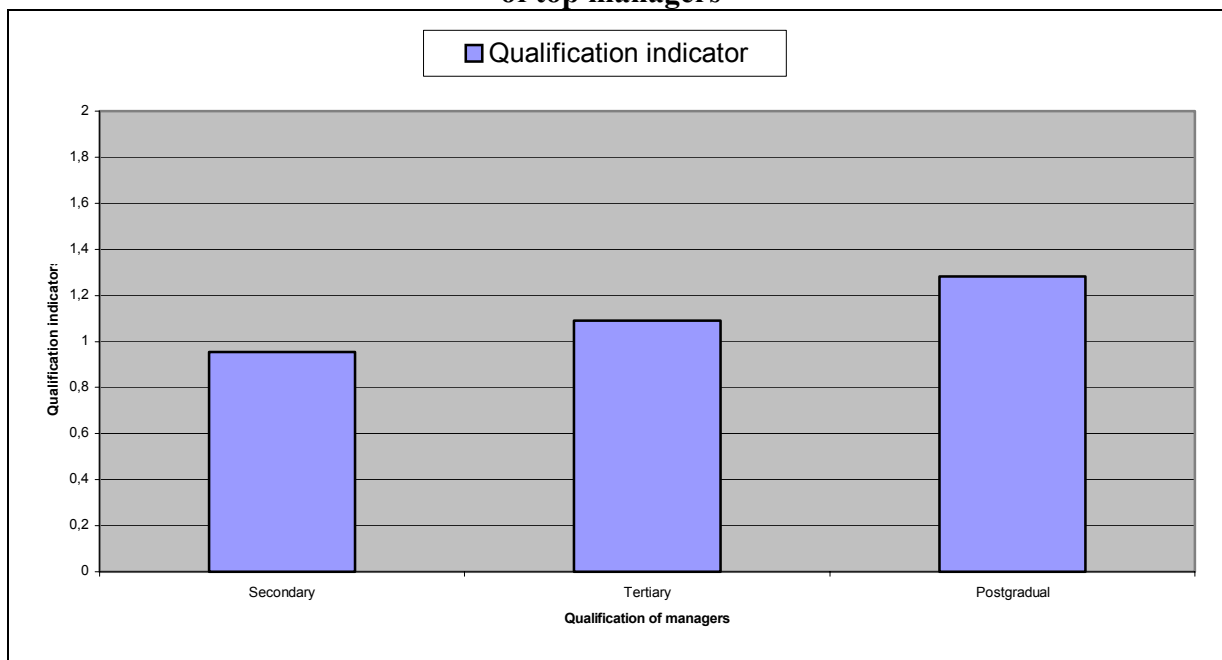
enterprises working with fewer employees reflects the expectation that employees should have higher qualifications. The difference can be significantly verified.

Figure 14: Findings of the analysis of the „qualification indicator” and sales revenue per employee



Source: own data

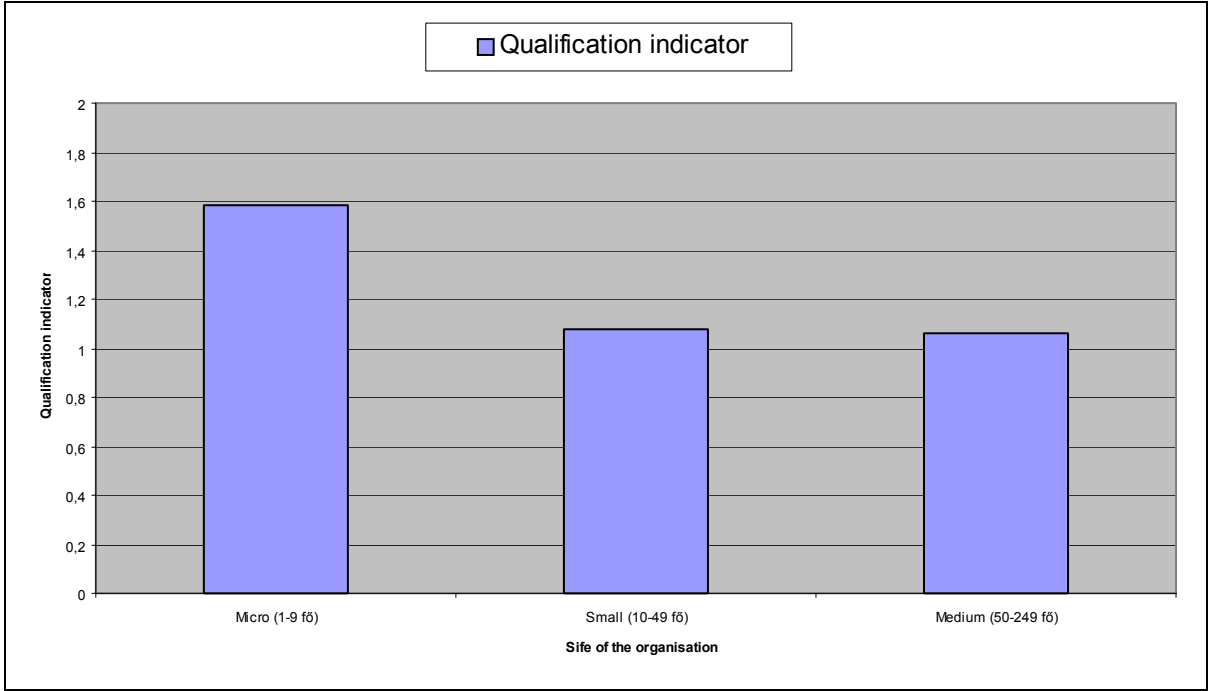
Figure 15: Findings of the analysis of the „qualification indicator” and the qualification of top managers



Source: own data

Micro organisations require employees that possess a wide range of skills and can not only cover a single area but can be effective in several posts – in line with the special features of a micro organisation.

Figure 16: Findings of the analysis of the „qualification indicator” and the size of the organisation



Source: own data

NEW AND NOVEL SCIENTIFIC RESULTS OF THE PAPER

– I have set out my own system of indicators for the qualification studies, which is suitable for the evaluation of the labour of a given organisation by their school qualifications, or allows the comparison of labour of a different composition based on their qualifications. The indicators applied are the following: qualification eigen-value (Kve); qualification total value (Kvö) and qualification indicator (Kvm).

I have set out translation factors of the qualification eigen-value, which can also function as a general eigen-value, based on my own experience:

Tertiary qualification (Kve _F)	=	2.79
Secondary qualification (Kve _K)	=	1.64
Elementary school qualification (Kve _Á)	=	0.58
No qualification (Kve _V)	=	0.28

$$\text{Qualification total value (Kvö)} = F * Kve_F + K * Kve_K + \acute{A} * Kve_{\acute{A}} + V * Kve_V$$

$$\text{Qualification indicator (Kvm)} = \frac{\text{Qualification total value (Kvö)}}{\text{Total number of employees (F + K + \acute{A} + V)}}$$

– Qualification indicators ranged from 0.58 to 2.79 for the companies assessed. The qualification indicator of almost 50% did not reach score 1, which means that the school qualification of the employees was low. I have found that the higher is the qualification of the employees, the higher sales revenues were realised by the company, while in terms of micro enterprises with a low number of employees; a higher qualification indicator reflects an expectation of the staff to higher school education. My findings have been significantly verified. I have found a positive correlation between the qualification of top managers of the organisations studied and the qualification indicators of companies, i. e. the higher a manager is qualified, the higher is the qualification indicator of the company he manages, i.e. the qualifications of its employees. That finding has not been verified significantly.

— There has been no major difference between training incentives of managers and subordinates. Material incentive continues to be the key factor. For managers, exchange of information is currently a primary training incentive, the opportunity to meet other experts and exchange their ideas, further, performance related payment and bonuses applied jointly

are part of material incentives. In the future, material incentives are gaining in importance. For subordinates, the operation of material incentives is currently highly important as a training incentive. It is not expected to change in the future either, while expectations linked to quality work are going to gain in strength.

— The current practice of career management is still uncertain and unformed with agricultural organisations, however, managers intend to provide more importance for the topic in the future in order to achieve better results in their businesses. The most important forms of support currently include participation at conferences and follow up workshops, while the importance of career planning is expected to gain importance in the future. More successful companies are expected to underline the part played by language training in the future and it has been significantly proved that such companies consider in-company vocational trainings effective to improve managerial skills. Large companies – with a higher number of employees - consider the methods supporting individual learning more important than smaller ones. Profitable companies consider the topic more important than those that operate less profitably.

— Performance evaluation is varied currently; it is a less frequently applied method. In large organisations, the methods of performance evaluation are more important. I have found major differences between the approaches of managers depending on their ages. In the agriculture and in the companies studies, managers currently consider setting work norms and evaluating past performance to be the most effective methods of performance evaluation. There is no major change expected regarding the priority of the methods in the future either. The experimental results have shown a significant correlation regarding the fact that performance evaluation gains in importance if sales revenues increase, particularly the methods of work norms, reports and forced classification.

OTHER PUBLICATIONS IN THE FIELD OF THE PAPER

Studies, research reports, posters and other publications

- {1} Dudás F.–Z. Piros M. (1994): Munkaszervezés- és munkatechnikák tréning forgatókönyv. [Work organisation and work techniques, training scenario] ÁB–Aegon Biztosító Rt., Budapest
- {2} B. Kiss M –Kovács L.–Z. Piros M. (1995): Kommunikációs tréning forgatókönyv. [Communications training scenario] ÁB-Aegon Biztosító Rt., Budapest
- {3} Galkó M.–Rák M.–Z. Piros M. (1996): Önismeret és időgazdálkodás. [Self-knowledge and time management] Garancia Biztosító Rt., Budapest. Figyelőfüzet vezetők részére [Monitoring book for managers]
- {4} Z. Piros M. (1996): Szemelvények a kiscsoportok fejlődésének kutatásáról. [Selected passages on the research of development in small groups] Garancia Biztosító Rt., Budapest. Oktatási segédlet. Kézirat
- {5} Z. Piros M. (1997): Felnőttoktatás módszerei, különös tekintettel a tréningmódszereire. [Methods of adult education, with particular attention on training methods] Magyar Biztosítók Országos Szövetsége. Budapest. Különlenyomat
- {6} Z. Piros M. (1997): A prezentációs technikák. [Presentation techniques] Magyar Biztosítók Országos Szövetsége. Budapest. Különlenyomat
- {7} Z. Piros M. (1997): Önismereti és vezetői készségfejlesztő tréningek folyamatelemzése. [A process analysis of self-knowledge and managerial skill development trainings] Garancia Biztosító Rt. Budapest. Kutatási Résztanulmány I. rész. Kézirat
- {8} Z. Piros M. (1997): Vezetői szerepfejlesztő tréningértékesítési vezetőknek. [Management role development training for sales managers] Garancia Biztosító Rt., Budapest Kutatási résztanulmány II. rész. Kézirat
- {9} Dudás F.–Z. Piros M. (1999): Minőség Fejlesztő Támogató Rendszer/Képzési igény felmérés módszertani segédanyaga [Quality Improvement Support System/Methodological aid to a training needs analysis] OTP-Garancia Biztosító Rt., Budapest
- {10} Készségfejlesztő tréningek hatásvizsgálatának eredményei.(1999) Poszter. [Findings of an analysis of effects of skill development trainings, Poster] PhD-konferencia, Debrecen
- {11} Z. Piros M. (1999): Evaluation of the effects of the training course for developing negotiating skills. Poster. 2nd International conference of PhD students, University of Miskolc.
- {12} Dr. Daróczi Z. – Z. Piros M. (2000): Sikeres Vezető tréning forgatókönyv középvezetők számára [Successful Manager – training scenario for middle managers] OTP-Garancia Biztosító Rt., Budapest
- {13} Z. Piros M. (2000): Készségfejlesztő tréningek hatásának vizsgálata a munkaerő megtartással összefüggésben. [Analysis of the effects of skills developkment trainings related to retainment of labour] OTP-Garancia Biztosító Rt., Budapest. Kutatási résztanulmány. Kézirat

{14} Z. Piros M. (2000): Kiemelt feladat az oktatás. [Training as an emphatic task] Országos Takarékpénztár és Kereskedelmi Bank Rt. kiadványa, X. évfolyam 4. szám, Budapest

{15} Z. Piros M. (2000): Oktatófilmek szakanyagai, illetve felnőttképzés szaktanácsadói munkái. 4 db oktató videofilm elkészítésének szakértői munkái. [Documents for training films and adult education; expert documents for 4 training videos] OTP-Garancia Biztosító Rt. Belső kiadványa, Budapest

{16} Z. Piros M. (2001): Tárgyalási Készségeket Fejlesztő Tréning hatásvizsgálata [Analysis of the effects of a training developing negotiation skills] (A vállalaton belüli hatékony human resourcefejlesztése tréningmódszerrel). Poster. "Tavaszi Szél"2001. Fiatal magyar tudományos kutatók és doktoranduszok V. világtalálkozója, Gödöllő

{17} Z. Piros M. (2002): Findings of human resource management studies made at agricultural business entities. Poszter. In: XXIX. Óvári Tudományos Napok. Mosonmagyaróvár 2002. október 3-4.

{18} Z. Piros M. (2002): Karriervizsgálatok a mezőgazdasági és élelmiszeripari vállalkozásokban. [Career studies at agricultural and food processing companies], Humánpolitikai szemle

{19} Z. Piros M. (2002): Tanulmány a mezőgazdasági társas vállalkozásokban végzett teljesítményértékelési vizsgálatok eredményeiről.[A paper on findings of analysis of performance evaluation carried out in agricultural enterprises], Humánpolitikai szemle

{20} Z. Piros M. (2002): Képzési formák eredményességének vizsgálata mezőgazdasági társas vállalkozásokban. [Analysis of the efficiency of different training forms in agricultural enterprises], Gazdálkodás (under publication)

{21} Z. Piros M. (2002): Emberi erőforrás gazdálkodás vizsgálata a mezőgazdaságban. [Research of human resource management in the agriculture], Agrártudományi közlemények October 2002

{22} Z. Piros M. (2002): Képzési motivációs vizsgálatok mezőgazdasági vezetők körében. [Research of training motivation among agricultural managers], Agrártudományi közlemények, October 2002

Conference presentations:

{23} Z. Piros M. (1997): A prezentációs technikák. [Presentation techniques] Magyar Biztosítók Országos Szövetsége. Módszertani Workshop. Budapest

{24} Z. Piros M. (1998): Tárgyalási készségeket Fejlesztő Tréning hatásvizsgálata, különös tekintettel az értékesítési módszertan oktatásának hatékonyságvizsgálatára. [Analysis of the effects of a training course developing negotiation techniques with particular attention on the effectiveness of training sales methods] Trénerképző tanfolyam, vitaindító, kutatási összefoglaló. Budapest

{25} Z. Piros M. (1999): Tárgyalhat hatékonyabban? Tárgyalási készségeket fejlesztő tréning bemutatása és hatásának mérése. [Can you negotiate more effectively? Description

and measuring the effect of a training course developing negotiation skills] PhD Konferencia, Debrecen

{26} Z. Piros M. (2001): Cél: egy tanulószervezet kialakítása. [The goal is to establish a learning organisation] Vitaindító előadás, Workshop/OTP-Garancia Biztosító Rt., Budapest

{27} Z. Piros M. (2001): Az oktatási befektetések hozama és megtérülése. [Yield and return of training investment] Humán innováció 2001. konferencia, Budapest

{28} Z. Piros M. (2002): A sikeres együttműködés kulcsa – a humán erőforrás feladatok újragondolása. IIR [Key to successful co-operation – human resource management tasks revisited], Technical conference, Budapest

{29} Z. Piros M. (2002): Results of qualification studies made at agricultural business entities. In: XXIX. Óvári Tudományos Napok. Mosonmagyaróvár 2002. október 3-4.