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HRD for an Ageing Workforce

Zsolt Nemeskéri, Iván Zádori, Antal Tibold, and Gábor Szécsi

7.1 Introduction

Dealing with the challenges of older labour force is becoming an increasingly important part of the human resource development (HRD) processes of companies all around the world where, among other factors, the work ability of the older labour force is an important challenge for the employers. This chapter explores the HR challenges of an older labour force and the main dimensions of the perception of workability among the employees using the Finnish model of Work Ability Index (WAI) and presents the research findings to the Hungarian Post. This Hungarian case study shows clearly that companies have to pay more attention to HRD practices that help them deal with the older labour force.

In today's changing and predominantly demand-orientated labour market, ageing workers still remain a vulnerable population. The

Z. Nemeskéri (✉) • I. Zádori • A. Tibold • G. Szécsi
University of Pécs, Pécs, Hungary
e-mail: nemeskeri.zsolt@kpvk.pte.hu; zadori.ivan@kpvk.pte.hu;
tibold.antal@pte.hu; szecsi.gabor@kpvk.pte.hu

preservation, rehabilitation and reintegration of their ability to work is a key issue for both society and the economy. In this respect, the most important challenges organisations have to face are reducing age discrimination, supporting lifelong learning programmes for the ageing population, ensuring appropriate employment conditions for older age groups and introducing new solutions for old age activity and productivity development.

Older workers are a decisive part of the workforce of modern societies; their number will increase significantly in the coming decades. At the same time, older workers have different skills and competencies compared to other generations. Without them, a considerable shortage in the professional working force and an insufficient structural capacity in the labour market may be observed. It is also an important role of this age group to pass on their work-related tacit knowledge to younger generations. The future development of workplace is based on the quality of co-operation between various generations. There is no doubt that work experience and life skills are improving with age. According to Ilmarinen (2012), when performance is measured at work the improvement in work experience is counterbalanced by certain basic mental processes such as memory functions and psychomotor capabilities. Thus, the purpose is to explore the generational differences of the perception of workability among the employees of the company examined (the Hungarian Post) and draw conclusions in connection with future HRD practices.

In the European Union, the employment rate of the population between 55 and 64 years of age was close to 50% in 2011, whereas in Hungary only 36% of the older generation was active workers. A significantly decreasing tendency of employment rate can be observed in older age groups. For the population aged between 55 and 59, the rate was 54%, while only 14% of the 60–64 age group was employed. In 2014, for 11 of the EU member states the employment rate of older workers was between 50% and 66%; Sweden achieved a remarkably high result (74.0%) (EUROSTAT 2017).

These data show the importance of the research questions of this chapter. These challenges must be in focus in Hungary where, according to the report of the Hungarian Central Statistical Office (CSO Report 2017), the employment rate of people between the ages of 55 and 64 was 46.7%

in 2016. Demographic changes may cause the most significant negative labour market effects in the 2020s. At that time, the number of working-age people could fall by 11% compared to the average of previous decades. Those generations who are exiting the labour market in the late 2010s are far more numerous than those who are entering it. In Hungary, because of the Communist population politics, the so-called Ratkó-generation (born between 1950 and 1956) are exiting the labour market in this period; they reach retirement age between 2017 and 2020. Eurostat shows a similar trend predicting a somewhat smaller (25%) reduction in workforce between 2010 and 2060. In Hungary, for the same time period, the model of CSO predicts 38% reduction in the workforce (Kreiszné 2016).

In Hungary, according to the outcome of the 2015 projection by the Hungarian Demographic Research Institute of the Hungarian Central Statistical Office, Hungary's population is expected to be 7,900,000 in 2060; the high version indicates a population of 8,700,000 while the low version projects 6,700,000. Because of this, the active population of working age is expected to decrease, threatening the availability of labour force. Therefore, ageing poses a serious challenge for health care services, economic growth and for funding social welfare systems. According to the Randstad Flexibility Work study (2015), the reduction of the population of working age may lead to a serious shortage of labour, and pensions are predicted to consume 15% of European gross domestic product (GDP) by 2050 (Blanchflower 2015). The policy on the elderly can be found in the various strategies in European countries including Hungary (NSOP 2009).

In recent years, the Hungarian Government's measures have tried to promote the possibilities for re-employing those of retirement age. From a social and policy perspective, older employees form an important part of the labour force of modern societies and their number is set to increase in the coming decades. Elderly employees have different skills and abilities than other generations do. Without them, society would face a shortage of professionals and the insufficiency of structural and network building capacities. At the same time, it is important to pass on tacit knowledge to younger generations. The strongest combination of workplace competence is based on the different strengths of the different

generations. The better health condition and life expectancy of elder employees improves their possibilities for enriching an age-friendly society (Mathiasen 1998).

However, a good life spent working is an important prerequisite for elderly employees remaining active, allowing society to benefit from their strengths and talents. In the course of this, they may play an active role in building a sustainable and caring society where solidarity exists between generations and a productive life spent working is an important starting point for an active old age. Satisfactory employment may help to avoid illnesses as well as physical and mental deterioration, ensure a good cognitive and physical condition, and promote the development of positive and active attitudes to life. The quality of life spent working has a great impact on all employees given the great amount of time sent at the workplace (Kaiser et al. 2000).

Following the monetary and economic crisis of 2009, employment policies and the labour market have been transformed and are shifting towards competitiveness even though segmentation is still significant in the labour market (Nemeskéri and Szellő 2017). An increase in demand for labour can be demonstrated to be significant in respect of human resources (labour force) in the labour markets, the positive balance of which has been provided by the developing economy, globalisation and mobility (Bús 2019; Zádori et al. 2019).

The structural changes in the economy and the labour market considerably influence the distribution of employment in all fields of economic activities. Demand for labour is also strongly influenced by factors independent from supply. The expected level of employment is determined by processes that work in opposite directions throughout the entirety of the national economy. One of the most important influencing factors will be the effect of technical and technological evolution that will squash labour head count (robotisation and widespread application of artificial intelligence in several fields of industry and services).

The labour market is undergoing a radical change, thanks to unstoppable technical progress. Digitalisation has further broadened the segmented labour market and restructured the needed skills. It is also having an impact on growing intergenerational problems: there has never been such a deep divide between active generations working in the same

workplace. The reason for the change is simple; the industrial society has been gradually replaced by the information society and then the knowledge-based society, which completely rewrites the order and process of communication between people. In the twenty-first century, having digital competence means not only accessing and using info-communication technologies, but possessing related and appropriate knowledge, skills and attitudes as well. In the case of older generations lacking proper digital knowledge could be significant in some sectors. From this point of view, the importance of development, training and retraining programmes which provide a realistic, accessible opportunity for older workers to acquire the digital competence needed for working in the twenty-first century could be essential.

As a result of technological development, the labour market needs of some industries are undergoing an intensive change and the demand for skilled and unskilled labour force is also changing. There are various estimates of the proportion of the workforce currently expected to be affected by automation. From this point of view, almost every segment of the labour market is 'at risk' and traditional work can be significantly transformed in the period ahead. Changes, of course, are difficult to predict, as well as the extent and speed of development to transform specific sectors and areas of activity. These changes do not necessarily mean the complete exclusion of human factor, but rather that employees need new competencies and will have to perform other types of tasks within organisations. Consequently, ensuring the balance of demand and supply and the acquisition of competitive knowledge will certainly be specified as one of the most important HRD priorities in the coming years.

7.2   Theoretical Development

Work ability research started in Finland in the 1990s due to the challenges of an ageing workforce. The employment rates of older workers (55+ years) were below 40% and early retirement and work disability rates were rather common in many European countries. The work ability concept and methods were developed and broad international research activities were started in the 1990s. A comprehensive promotion model

for work ability was created aiming to prevent work ability from declining during ageing (Ilmarinen 2019).

The Finnish Model of the Work Ability House has been adopted to address the chapter's objectives. According to this model that was used as the framework of the study, the complex approach to work ability may be illustrated best with the structure of a house (see Fig. 7.1). The floors of the house are closely related and have mutual impacts on each other. If there is a healthy balance, there is good work ability and it will remain in the long term (Zádori et al. 2019).

The Work Ability House model shows that the measures taken at the workplace to promote work ability must cover all four levels. Employees have higher responsibility for their health and competencies and the employer takes more responsibility for the organisation and distribution of work. Consequently, the proactivity-based concept is based on co-operation between the employer and the employee: together they may create a better balance in the workplace and may increase work ability. The risk analyses must focus on the significant individual differences reflected in functional abilities, the health of the employees, changes in

Fig. 7.1 Work Ability Index model (Source: Based on Habibi et al. 2014)

their work ability, disabilities, gender-related issues and harmful exposures in the workplace (physical, chemical, biological, ergonomic and psycho-social pathologic factors). As work must align with individual abilities, skills and health conditions with a permanent and dynamic process that is based on adequate risk analysis, aligning work to the health condition and needs of older employees may not represent any additional burden. Age is only one aspect of workforce heterogeneity; management must constantly be made aware of age-related issues. The adequate planning of personalised jobs and tasks, the strengths, needs and abilities of ageing employees with the involvement of ageing employees is a key factor in maintaining the work ability, productivity and welfare of employees (Zádori and Nemeskéri 2019; Zádori et al. 2019).

According to Ilmarinen, most of the research activities of work ability has been focused on occupational health research, epidemiology and ergonomics, and recently, in occupational gerontology. These factors affecting work ability have been improved significantly (Ilmarinen 2019).

The tool for this empirical research was the Work Ability Index survey. This survey was developed at the Finnish Institute of Occupational Health (FIOH) in the early 1980s. It first occurred as a survey of elderly local government workers with the aim of measuring and verifying the effects of working capacity development measures. The Work Ability Index questionnaire is a tool that helps find employees who need support to continue their role in the labour market. The Work Ability Index is also a special policy issue; based on the experience of the survey, economic, educational and health prevention directives may be defined that can promote the activity of ageing employees in the labour market (Berg et al. 2008). The main objectives of the Work Ability Index include the following:

- Maintain and protect work ability during the entire period of the income earning ability;
- Recognise factors reducing or improving work ability in order to facilitate individual interventions;
- Summarise the risk elements of inability to continue employment and early retirement;
- Evaluate the intervention options (Jakab 2013).

Table 7.1 Questions (subindices) and scores of the Work Ability Index

Question (subindex)	Maximum score	Distribution of scoring
W1: present work ability compared to the best ability before	10	Score: on a scale of 0–10
W2: work ability in relation to the present job demands	10	Value based on the answers: between 2 and 10 points
W3: number of current diseases	7	Scoring: – at least 5 diseases = 1 point – 4 diseases = 2 points – 3 diseases = 3 points – 2 diseases = 4 points – 1 diseases = 5 points – no diseases = 7 points
W4: estimated impact of diseases on work	6	Score: between 1 and 6 points
W5: sick leave in the past 12 months	5	Score between 1 and 5 points
W6: own estimate on work ability in two years from the response	7	Score based on the answers: – I probably will not be able = 1 point – not certain = 4 points – I'm rather certain that I will be able = 7 points
W7: psychological power reserve	4	Score: based on the total of the numbers from the set of questions 0–3 = 1 point 4–6 = 2 points 7–9 = 3 points 10–12 = 4 points

The Work Ability Index consists of seven questions. The highest score is 49, the breakdown and assessment of which are included in Table 7.1 (Kudász 2016).

The Work Ability Index is based on questionnaire self-declarations and, following its evaluation, the results indicate the current status of the employee well and project, with high precision, the continuation of employment (see Table 7.2).

According to the most frequent criticism, the Work Ability Index is based on the subjective feeling of the employee rather than focusing on

Table 7.2 Valuation of the Work Ability Index

Score	Work ability category	Proposed measures
7–27	Bad	Restoration of work ability
28–36	Moderate	Improvement of work ability
37–43	Good	Strengthening of work ability
44–49	Excellent	Maintenance of work ability

the conditions of the workplace, the circumstances and terms of employment, that is, those defined in the employment contract. It takes into account the employee's feelings about the workplace without explaining them and therefore it does not support the improvement of work conditions or the concepts and tools with which intervention could take place. However, according to those who protect the index, the work ability defined in this manner does not only depend on the individual but it is determined by the work conditions and requirements (Jakab 2013). In Hungary, the Hungarian Institute of Occupational Health (HIOH) gained a non-exclusive right to co-ordinate the distribution of the WAI. The Hungarian version of the survey was developed by the National Labour Office's Department of Occupational Health; they launched a nationwide survey in 2013 to validate the questionnaire (WAI Survey 2015).

7.3 Methodology

Today, despite the growing importance of the question, there is a very little understanding in Hungarian literature on the perception of older employees related to:

- Current work ability compared with their lifetime best;
- Work ability in relation to the demands of the job;
- Own prognosis of their work ability in two years' time.

The empirical study presented in this chapter will focus on the aforementioned areas in connection with their relevance to the field of Strategic Human Resource Development. The questionnaire-based research was

conducted amongst the employees of the Hungarian Post, through the EVASYS computer system,[1] online and offline, between July 2 and September 7, 2018. The hard copy of the questionnaire extracted from the EVASYS system was suitable for automated processing, that is, the returned questionnaires were scanned and then imported into the system. The database contained 2162 records. The data was first cleaned and categorised. Second, groups were created from the raw answers (such as age, geographic, place of work) to assess the results comprehensively.

Additionally, various statistical data reduction methods (factor analysis, main component analysis and cluster analysis) were used for data compression and data structure identification. All these methods and models came from the toolset of analytical statistics. The conditions of their applicability were reviewed in accordance with the methodology requirements with variance analysis in the case of cluster analysis and with the Bartlett test and the review of the KMO—Kaiser-Meyer-Olkin index in the case of the main component analysis. In addition, for simpler implementation and graphic display the individual straight-line regression models in graphs were also expressed with the help of Microsoft Excel.

The query was run based on the WAI questionnaire referred to in the first part of this chapter. The respondents gave their answers voluntarily, with self-declarations reflecting the nature of the questionnaire. The 2162 individuals that filled in the questionnaire represent 7.21% of the total employees of the Hungarian Post and sufficiently represents the population. Participation in the survey shows the commitment of the company to the protection of health of employees and improvement of their loyalty and commitment. As the Hungarian Post operates in the whole country, the geographic distribution the respondents show the patterns of the labour force distribution.

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[1] EVASYS is a software for organisational surveys and research projects. This system can be used for paper-based, web-based and hybrid surveys as well, which combines all aspects of the evaluation process from designing the questionnaires and mass control of survey procedures to electronic data collection and automatic reporting in one software package (https://en.evasys.de/main/home.html).

7.4 Findings

7.4.1 Descriptive Statistics

The proportion of women in the main population is 66.3% while that of men is 33.7%. Based on their age distribution, the proportion of respondents reflects the distribution of all employees. It can also be seen that most workers, both in the primary population and in the respondents, belong to the age group of 40 years old and above where the risk assessment shows that they are already sensitive to different physical and mental effects. By examining the educational attainment of the workers in the sample, it can be concluded that the proportion of secondary school graduates is not significant, but this may also be due to the higher willingness to respond to those with higher education. Even though family status is part of the private sphere, it belongs to the quality of the daily, ready-to-work state and to the existence of mental reserve. At the same time, this does not necessarily mean that the unmarried or divorced employee's ability to work would be reduced or lower (respondents' family statuses are 1.9% widowed, 10.4% divorced, 19.8% in a civil partnership, 49.9% married and 18% unmarried).

In the general question group, two other important factors were also asked for: one is shift work (work schedule) and the other is the place of work. Physical and mental risk factors for shift work may occur primarily among those working in changing shifts and night work. 76.8% of the employees in the sample work in single shifts during the daytime, 1.8% are on night shifts, while 21.4% work to a shift pattern. In the case of multi-shift work, work is performed in at least two consecutive working hours (shifts) in the same workplace within one calendar day. Its purpose is to make the best use of different tools and services. Multi-shift work can be two-cycle or continuous. Continuous shifts mean working every day of the week, including holidays.

Night work is the most burdensome, as work takes place during the period of sleep and disturbs the biological rhythm. As a result, during the night shift and during the following day there may be many negative effects on the employee's quality of life. According to the location of the work, 10.6% of the sample work in a variable location while 89.4% work in a given settlement.

Physical work means a set of activities in which the performance of a task primarily requires physical effort. The physical and muscular system plays an important role in physical work and the energy demand of the activity can be significant. Appropriate physical strength and condition is needed for doing this type of task. At the same time, a permanent one-sided load can damage the musculoskeletal system, metabolism and blood circulation as well. The individual characteristics and physical condition of the person performing the work determine how their body responds to physical stress. From the age of 50, workers need more time to rest. Intellectual work is an activity that is connected to the cerebral cortex, based on scientific knowledge and the most essential part is the processing of information.

The results suggest that the women's index of illness is significantly worse than that of men. Respondents with multiple illnesses are common among respondents. In addition to the knowledge of the diseases, the employee was asked whether their work was disturbed by their current illness or injury. The results show that older workers already require increased control and greater corporate (HR) attention. Within the age groups, there is a significant increase in the proportion of patients aged 50 and over in terms of more intensive control. Participants in the sample also had to answer whether they think they would be able to work in their current job with their current state of health within the next two years. The average score was 6.57 points; in the case of women this score was 6.58 and was 6.54 for men. The rate of the answer 'quite certain' is the most typical answer amongst almost every age group and gender.

In terms of future work ability, intellectual workers are the most optimistic with a proportion of 91.4%. About 84.7% of manual workers stated that they would be able to keep their working capacity while 80.9% of workers with both intellectual and physical workload agreed. Similarly, the estimation of the double-load employees is lower. All work, to some extent, causes psychological burdens. The extent of this factor is quite different. Part of this burden is due to physical elements, part due to the social work environment and part to the job itself. To reduce these burdensome effects people must carry out some regulatory activity, that is, adapt to the conditions. Although the method of measuring mental work (mental strain) is only partly known, mental work—as well as the

Table 7.3 Valuation of the Work Ability Index for the sample

Work ability category	WAI score	Persons in sample
Bad	14–27	55
Moderate	28–36	302
Good	37–43	922
Excellent	44–49	883
Total		2.162

physical—can be accompanied by the difficulties of adaptation and cause tiredness (these are the so-called demarcation factors). These physical and mental barriers to work not only undermine work performance but also endanger health (see Table 7.3).

Overall, the average Work Ability Index for the whole sample is 41.36 points. The average of the total sample is exceeded by men despite the fact that women's own estimation of the current work ability shows better results than men. Women have more mental reserves and are more confident about their future ability to work; however, they have more illnesses and are on sick leave more often. It should be noted that in the comparison of the sample and the basic population, the proportion of women employed is significantly higher in the examined area which also affects the main focuses of HR work and organisational culture as well.

According to the results of this survey, the Work Ability Index is suitable for the determination of individual work capacity and the WAI score is in close correlation with the progress of age and time spent in work, along with the increase of the total workload. For example, in the case of heavy physical work or/and shift work, due to the high load and stress the WAI can fall below the acceptable value. Based on the examined sample, it can be shown that the value of the Work Ability Index moves almost linearly together with the subjective evaluation of the current working capacity and its physical and mental components. With a very high explanatory power between the individual judgement of physical and mental capacity, the value of the WAI draws linear regression lines (in all three cases the value of R^2 is around 0.99). This leads to the conclusion that a large part of the data content of the Work Ability Index contains the individual, subjective judgement of working ability (confirmed by the results of factor analysis). According to this data, the main focus is:

- To restore work ability (2.9%, 7–27 points);
- To improve work ability (14.2%, 28–36 points);
- To strengthen work ability (43.1%);
- To maintain work ability (39.8%).

7.5   Data Analysis

The data extracted from EVASYS was also analysed with the help of SPSS. Based on certain variables the researchers tried to form some groups which could provide a deeper insight into the data. Regarding the primary evaluation, two of the results will be demonstrated. In the first model a cluster formation was performed with the help of the two-step cluster analysis by using two variables ('are you optimistic about the future?' and 'highest level of education'). Moreover, a so-called evaluation variable, which is the WAI, is being used. Due to the significance level seen on table 36 (ANOVA analysis), the clusters form does differ regarding WAI (see Table 7.4).

Based on the two input variables, three distinct groups have been formed. The relative sizes of these clusters are 37.0%, 34.0% and 29.0%. This is, however, a balanced picture since the cluster sizes seem to be relatively close to one another. The ratio of size (1.28) is also promising and underpins the balance mentioned previously. Concerning the groups, it can be concluded that basically all group members (both highly educated and those who possess a secondary school education) are quite optimistic about their future. Nonetheless, the evaluation variable WAI is at an average level or higher. It is noted, however, that those with further education have an above-average Work Ability Index.

As a conclusion—mainly focusing on HRD activities—one can assert that in connection with those who are well educated the organisation should provide and organise health preserving programmes. This can be a tool for maintaining or improving working abilities and making employees more committed. Therefore, the preparation and introduction of health and prevention programmes should be an important goal of HR professionals and managers. This way the organisation can avoid high levels of fluctuation and losses as a result of health issues.

Table 7.4 Relevance of clusters with ANOVA (1st model)

	Sum of squares	df	Mean square	F	Sig.
Between groups	503.524	2	251.762	8.700	.000
Within groups	62,475.135	2,159	28.937		
Total	62,978.659	2,161			

Sum of squares between groups = between groups variance x degrees of freedom for between groups

Sum of squares within groups = within groups variance x degrees of freedom for within groups

df = degrees of freedom (either between groups, or within groups depending on the row)

Mean square between groups = sum of squares between groups divided by degrees of freedom for between groups (variance or variability of data between groups)

Mean square within groups = sum of squares within groups divided by degrees of freedom for within groups (variance or variability of data within groups)

F = F-ratio stands for the following: Mean square between groups divided by Mean square within groups Sig. = the significance of F, in other words the p-value. The p-value shows the mistake we make by rejecting the null hypothesis. We reject the null hypothesis if the p-value is not greater than the significance level. In case of ANOVA we reject the null hypothesis, which says that the means of the different groups are equal. Since the significance level is set to .05, in our case the null hypothesis can be rejected, hence groups differ in their means, that is, it is reasonable to think that these groups in question differ in a relevant sense

In the second model, the highest level of education is considered and the type of work and current work ability relative to best ever. The result is a powerful model. First, looking at the ANOVA analysis (Table 7.5) it is apparent that based on the significance level, clusters do differ from one another concerning WAI, which has been also been taken as an evaluation variable.

Table 7.5 also demonstrates that this model has a better explanatory power than the first. This means that conclusions based on the second model are more accurate. Recommendations given to the management and HRD experts are more sound and well established. Two different cluster sizes are produced: 41.6% and 58.4%. This means that the clusters are not as balanced as in the first model, which is also indicated by the 1.4 ratio of size value. This relative imbalance, however, should not detract one's attention. Further results show that both clustering variables form an important role in cluster formation. Regarding the Work Ability Index, major differences are seen between the two groups. Those who

Table 7.5 Relevance of clusters with ANOVA (2nd model)

	Sum of squares	df	Mean square	F	Sig.
Between groups	2,030.168	1	2,030.168	71.949	.000
Within groups	60,948.491	2,160	28.217		
Total	62,978.659	2,161			

Sum of squares between groups = between groups variance x degrees of freedom for between groups

Sum of squares within groups = within groups variance x degrees of freedom for within groups

df = degrees of freedom (either between groups, or within groups depending on the row)

Mean square between groups = sum of squares between groups divided by degrees of freedom for between groups (variance or variability of data between groups)

Mean square within groups = sum of squares within groups divided by degrees of freedom for within groups (variance or variability of data within groups)

F = F-ratio stands for the following: Mean square between groups divided by Mean square within groups

Sig. = the significance of F, in other words the p-value. The p-value shows the mistake we make by rejecting the null hypothesis. We reject the null hypothesis if the p-value is not greater than the significance level. In case of ANOVA we reject the null hypothesis, which says that the means of the different groups are equal. Since the significance level is set to .05, in our case the null hypothesis can be rejected, hence groups differ in their means, that is, it is reasonable to think that these groups in question differ in a relevant sense

carry out white-collar work (i.e. those who are working in an office environment) have an above-average WAI (43.03%); however, employees who perform manual labour are below average (41.03%). Therefore, based on the second model a risk group was identified. The main characteristic of this cluster is related to the form of work. As shown above, detrimental health issues can occur regarding the second group, namely those who carry out manual labour.

7.6   Implications for HRD Decisions

The research proved that the Work Ability Index of employees who obtained vocational qualifications within the Hungarian Post and had negative projections for the future was much lower than the company

average. This result was examined with correlation assessment and cluster analysis. On this basis, the HR department of the company can develop and introduce proactive, preventive development programmes with which the Work Ability Index of these employee groups could be improved.

There is also significant correlation between the Work Ability Index and other indicators reviewed in the questionnaire (age, optimism about the future, own opinion about the current status of work ability, highest vocational qualifications, etc.); it is a research result that gives an important basis for preparing a human resource development strategy planning for the future. The new result stems from the fact that the applicability of the WAI methodology in Hungarian large companies could be proved with a research project involving a great number of respondents. Based on the validated information that the average Work Ability Index is 41.36 points out of the maximum 49 points at the company, the employer can define future programmes with which the improvement of the index may become visible in a new measurement.

There is significant correlation between the Work Ability Index and other indicators reviewed in the questionnaire (age, optimism about the future, subjective opinion about the current status of work ability, highest vocational qualifications, etc.); it is a research result that gives an important basis for preparing a human resource management strategy planned for the future. In its practical implementation, organisations would be able to designate specific target groups and fields of action for future HR programmes for preventive and development purposes.

The differences between the individual organisational units and jobs in WAI data and their roots in the reviewed large company are fields requiring further research. It would be important to see the correlation between results of other surveys at the particular employer, which measured the professional competence level or degree of commitment of the employees, and the Work Ability Index Survey. Once the age and generation management programmes are launched at this large company, it would be advisable to prepare WAI-related tests for specific targeted groups. These data could confirm whether the employer's investment into the development of the work ability of employees generated any return or not. The methodology assessing the work ability of ageing employees

should become part of the public service development strategy which is currently being developed to be introduced in 2020 in order to sustain and improve the efficiency of the labour market in the subsequent decades despite the unfavourable demographic trends.

7.7   Learning Outcomes

The special responsibility of an HRD specialist is not only to take advantage of the workforce but also to preserve, retain and renew the workforce through well-shaped jobs, a planned work environment and occupational health measures. This activity could be understood as preventing the risk of working ability of the older workforce. The most important learning-related research outcomes of the study can be summarised as follows:

- The Work Ability Index clearly indicates the need to create age management or, where this is not possible, to employ an HR specialist at local level who can help older workers. In line with the holistic approach, teamwork is an important element in which collaboration between HR, occupational health services and management members is more and more important.
- Age sensitive risk assessment is required. Age sensitive risk assessment considers the specific characteristics of different age groups in risk assessments, including possible changes in the ability and health status of older workers. In the case of older workers, more attention should be paid to their physical use, to the risks associated with shift work, or working in heat, noise and so on. However, as the differences between individuals become more pronounced with age, no conclusions should be drawn based on age alone. The risk assessment should take into account the individual functional capacity and health status of the employee in the light of workplace expectations.
- Developing and operating a stress monitoring system can be an important HR task as well. It is a system for the inventory, assessment and management of physical and psychological stressors (and their effects) resulting from the physical and social work environment. With the

professional operation of the so-called physical and psychological stressors workplace, stress can be judged, treated and prevented.

- Providing ergonomic responsibilities and opportunities is also essential, not only for the elderly, but also for all employees. Dual, mental and physics burdens are further aggravated by workplace harm caused by lack of ergonomics.
- Development of a health-conscious behaviour is essential to improve the Work Ability Index, where the importance of prevention in health and safety at work cannot be over-emphasised.

All of the above learning-related research outcomes could only be implemented with strong HRD support. In this respect, organisations should focus more intensively on knowledge transfer between generations, new skills and competencies which are among the most important HRD priorities in the forthcoming years.

7.8   Conclusion

Demographic changes may cause the most significant negative labour market impulse in the 2020s when the number of people of employment age may drop by 11% compared to the averages of previous decades. This is a significant number in relation to which complex age management programmes need to be launched at the level of the national economy and companies at the end of the current decade. In future, global trends will influence the labour market (robotisation and artificial intelligence) in which gradual increase of work performance will have a crucial role. This can only be achieved by boosting knowledge intensity which requires continuous knowledge transfer between generations. Among these challenges, it includes human resource management to develop new tools in order to generate added value to organisations. This is an important functional and strategic areas within a company. Predictive analysis is becoming an increasingly important part of the HR processes of companies because it provides complex business information and insights that help

more effective and timely management of human resources and prepare the company for future challenges; previously they would present impossible tasks for the management of the organisation. The WAI methodology helps to develop a predictive tool for the future through a deeper statistical analysis of the results (cluster analysis, main component analysis, etc.) and effectively develop work ability, concentrating on the focus groups where reduction of work ability is mostly at risk.

Age management strategies (part-time, transformed/customised jobs, etc.) may be developed where ageing employee groups can deal with knowledge transfer and other key roles and where this social group can also become more active in the labour market. Each company, organisation and institution should concentrate more on its employer brand development because acquiring the best employees is proving to be an increasingly difficult challenge. Jobseekers have a lot more options and can find information about their future employers more easily (managers, the values of the company, their actions in corporate social responsibility, etc.). That is why companies must make all reasonable efforts to present themselves most positively to their future colleagues but this can only be achieved if their message, communicated inside and outside their company, is credible. That can work if employees receive positive employee experiences from their employer before joining the company, during employment and after they have left the company. An employer brand must be built where each age group can find messages attractive to them. However, it requires effective generation and age management at companies which cannot be achieved without understanding the Work Ability Index of the present employees and all other correlations that affect it. Finally, it is important to pay attention to the challenges of the present coronavirus pandemic and global crisis: these research results, suggestions and conclusions are only valid in a 'normal' situation, in a globalised, interconnected and interdependent world. Current processes are probably going to change the labour market as we know it and will fundamentally influence HRD practices as well.

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