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A possible new direction for employment strategies in rural areas: theoretical foundation for the assessment of employability

Abstract

The aim of this study is to develop a theoretical framework for measuring an important segment of labour economics, namely the spatial structure of employability, especially for disadvantaged groups and regions. Based on secondary sources, it summarises the main factors of employability, providing a starting point for researchers working on the econometric branch of social sciences to develop an employability index using this conceptual background. The base of the primary research is the complex questionnaire survey administered to a group of the most disadvantaged job seekers. The study evaluates the factors hindering the employability of human resources that can be activated in the

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most disadvantaged districts. The research results are useful for those who are interested in increasing employment and reducing the impact of employability-limiting factors.

Keywords: employability, labour market, disadvantaged groups, rural, Hungary

Introduction

Following the global economic crisis of 2008, unemployment showed an increase in the Eastern European countries, and this problem became one of the most serious socio-economic challenges, strongly affecting people who, due to one of their characteristics, had a disadvantage in the competition for workplaces. In Hungary, the ratio of jobseekers to the economically-active aged population peaked in 2010, after which moderation can be observed. The unemployment rate declined to 4.2% in August 2017, while at the same time the danger of labour shortages and the difficulty of integrating the still-available, free labour force, increased in several areas. The extensive employment of the Hungarian labour force, as well as the increase of staff and additional enlargements, can further increase the efficiency of employability and exploring the possibilities of mitigating the limiting factors. This is especially true for those with low educational attainment and unfavourable mobility, who are extremely difficult to employ because of their situation and lack of motivation. The spatial analysis of employability is particularly timely, in that a large number of the unfilled jobs are concentrated in the Central Hungarian region and in the western and north-western parts of the country, while in the disadvantaged areas the ratio of registered jobseekers to the economically-active aged population is significantly higher than the national average (CSO).

The challenge of increasing employability is alluded to in a number of Hungarian and international documents. The priority of the Employment Strategy integrated in Europe in 2020 should be highlighted: the improvement of the quantitative and qualitative parameters of the labour market. The inclusive growth socially spreading the effects of the economic development is needed for several reasons. The unfavourable demographic changes, the particularly low employment rate among women and older workers, and the high job search rate, deepened by the crisis, which is especially affecting

young people, are also focused on the issue of employability at the European level (Europe 2020 Strategy 2010). The Employment Report of the European Commission also supports the fact that, besides the structural problems, the lack of employee skills is a major obstacle to economic growth (Joint Employment Report 2014).

These above goals, naturally also appear in the vision and specific objectives of the Hungarian policy strategy, where the quantitative and qualitative development of the labour supply, namely the activation and the improvement of employability for the labour force, is one of the main tasks of employment policy. The National and Spatial Development Concept (OFTK), which summarises the long-term strategic ideas of the country, also points out, in several cases, the question of increasing employability, mentioning it among the social-strategic areas underpinning long-term development. The most important way to increase the economic activity and the level of employment, both of which are considered socio-economic constraints, is to improve the employability of the largest, but still unused groups, which are economically inactive and disadvantaged from the point of view of the labour market (Policy Strategy 2014–2020 2013).

The issue of employability is a complex problem which, in addition to the integration into the labour market, can also include, in a wider sense, the maintaining of job position and the construction of satisfactory career paths. The effectiveness of the measures aimed at improving employability can be helped by examining – with special regard to the employability of disadvantaged jobseekers – the territorial and group-specific issues of the problem. However, in order to make employability statistically measurable, it is important to define the stable conceptual frameworks and the relevant factors, so as to conceptualise the phenomenon by taking into account the territorial aspects while at the same time developing a model which is also valid for Hungary.

The general purpose of this study is to examine the theoretical and practical issues of employability measurement, so as to explore the group-specific features of disadvantaged jobseekers through which the dynamism of this labour market segment can be enhanced. The purpose of the analysis is also to determine the theoretical framework needed for the creation of an employability index to be developed by the authors.

The theoretical background presented below, and the primary purpose of the model built upon it, are designed to provide a framework for

conceptualising the notion of employability and defining certain dimensions of the issue, by taking into account the widest possible range of related background literature. The novelty, and at the same time the task, of the present research is to establish the measurement of the issue of employability potential in a territorial framework, thus enabling the peculiarities of its spatial structure to be explored. In the context of ensuring the latter, it is also of decisive importance to define the conceptual framework in a form that provides a stable basis for measuring the topic in accordance with the socio-economic-environmental relations. In connection with the latter, we considered it an important goal to make as many sub-dimensions of the topic as possible indexable on the basis of the available data, given the complex, multidimensional nature of employability. Modelling thus made it necessary for the study to include more elements than are often used in the background literature, so as to shed light on it through using more than just a few indicators. The holistic approach is also justified by the fact that the model to be developed would need to ensure the quantification of both the demand and supply side of the labour market as well as the relationship between the two.

The novelty of the work also lies in the fact that it establishes the possibility of measuring the employability potential, which enables the implementation of a complex spatial structure analysis of the topic that affects many of the dimensions of employability potential. The study carries this out either in settlement-level resolution, in general, or along individual subdimensions. At the same time, the latter can facilitate the exploration of employment bottlenecks on a territorial basis, which can be an important basis for both employers and professionals interested in reducing territorial disparities and promoting employability, also including the stakeholders for the development of rural areas and settlements.

The present theoretical framework makes a significant contribution to the exploration of the territorial specificities of rural areas in terms of employability. It does this, on the one hand, because the primary study, which is an important basis for the development of the model, also included interviews with many people living in rural areas, and therefore, during the refinement, the experiences of the surveyed people living in rural areas were used and integrated as well. On the other hand, the present model provides a basis for the assessment of the multi-characteristic settlement geography and socio-economic challenge system of the population living in rural areas,

as it covers a wide range of dimensions that can function as labour market territorial differentiating factors in village-city relations.

In connection with the above, the study defines the concept of employability, which can be interpreted in territorial dimensions. Based on the literature analysis and primary research, it describes the factors of the above-mentioned concept (business intensity and business structure; economic activity and employment; income situation; marital status and benefit systems; age and gender and ethnic structure; housing conditions and settlement attractiveness; health status; labour market services mobility and networking; qualifications) and its dimensions (labour market, economic environment; social environment and individual factors). At the same time, on the basis of a questionnaire survey, it examines the weight and impact of the factors defined regarding employability, in the group of disadvantaged jobseekers.

Literature background

The extremely broad possibility of interpreting employability has shown that, in the relevant literature – affecting a number of disciplines (psychology, sociology, geography, economics) – we can also encounter conceptual definitions which differ from one another in their essential elements. It is not surprising, therefore, that some of the authors emphasise the non-definition of the concept and possibility of plural interpretation (Borbély-Pecze 2010; Harvey 2001; Polónyi, 2010; Dérényi 2010; Fodorné 2012), which makes its target-specific definition timely. The authors emphasise that the important task of the work examining the question of employability is to record the conceptual framework that provides the background of the analysis. This issue is especially important in terms of spatiality, since the problem of employability can appear differentiated in the case of space, time and different groups (McQuaid and Lindsay 2005; Kun 2008); this not only depends on individual factors, but also on structural and cyclical processes (Peck and Theodore 2000).

A significant part of the studies related to the concept of employability approaches the phenomenon from the characteristics of the individual and jobseeker – typically the people entering the labour market from education and the system of higher education – identified by the soft factors. Among

the indicators, beyond the knowledge acquired during training, different capabilities and health status, there is often a wide range of personal, corporate and other competencies evaluated on the labour market, also including the existence of strategic thinking (Kun 2008; Kiss 2014; Derényi 2010; York 2006; McQuaid and Lindsay 2005; Blades, Fauth and Gibb 2012). Based on the 2006 approach of Yorke and Knight, employability can be mainly linked to the self-confidence, self-consciousness, self-knowledge, expertise, abilities and the quality of strategic thinking of the worker entering the labour market from the education system (USEM model¹). According to the concept developed by Dacre Pool and Sewell (2007) (CareerEDGE model²), the employability of an individual depends on his/her accumulated work experience and individual life experiences, acquired knowledge, key competencies (which are the basis of flexibility) and emotional intelligence. The model of Fugate, Kinicki and Ashforth (2004) is closer to the understanding of the concept of “employability” regarding individual soft factors (though it is already a transition towards the more general approaches of employability). This model interprets the concept starting from three factors: personal flexibility, career identity (including individual experiences and aspirations), and the interaction between social and human capital. First of all, the issue of employability, defined by the International Bologna Group (BFUG 2009), approaches the question primarily with factors that can be related to individuals, based on which the concept covers the presence of abilities that allow the individual to maintain employment and/or become self-employed, as well as successfully maintaining employment, and movement in the labour market. If it is assumed that higher education promotes the long-term labour market adaptability of the individual, then these definitions call attention to, among other things, the significance of the qualification indicator from the point of view of measuring the phenomenon.

The above definitions and models bring us closer to the interpretation of employability; however, since they concentrate primarily on the attributes and abilities of the individual that make it possible to index the spatial elements to a limited degree, a broader contextual approach is necessary.

¹ Understanding, Skills, Efficacy, Metacognition.

² Career, Experience, Degree Subject Knowledge, Understanding & Skills, Generic Skills, Emotional Intelligence.

Moreover, based on studies, although higher educational attainment reduces the risk of unemployment and protects against job losses, the presence of a qualified workforce alone does not yet guarantee achieving high territorial levels of employability. Training can only contribute to the finding of a job if it appears in line with the labour market expectations (Fodorné 2012) – the local employers can use it or mobilise it in quality and/or space through the mobility of the individual. The nature of the labour market environment, in addition to the factors describing the qualifications of the labour supply, is a significant factor in terms of employability level (Thijssen 2000; Thijssen et al. 2008; Forrier and Sels 2003; McQuaid and Lindsay 2005; Kiss 2014), including both the intra-corporate and non-corporate external labour markets (Forrier and Sels 2003).

Compared to the literature background, the novelty of this study lies in the fact that it is considered timely to develop a model and a related conceptual framework that enables group-specific measurement of employability for territorial units. With a view to achieving this, the aim of the research is to define the conceptual, territorial and structural frameworks of this phenomenon, establish the model of territorial employability, interpret its elements and variables, and, finally, identify the dominant factors affecting the employability of disadvantaged people.

Material and methods

The territorial base of this study is provided by the districts to be developed by a complex programme (716 settlements of 36 districts, Government Decree 106/2015 (IV.23)). In determining the spatial focus, a decisive role was played by the fact that, in these settlements, unemployment was the most strongly fixed since the regime change. By exploring alternative solutions concerning these areas, the competitiveness of the country can be greatly increased, and the tensions related to disruptions of the labour market can be alleviated.

Primary and secondary sources were equally used during the study. Employability is a complex concept that can be described in relation to multiple dimensions, and many of the approaches used for such description appear in the literature. Thus, the domestic and international studies, as well as the models describing the factors among the secondary sources, have a prominent role in determining the conceptual frameworks of employability.

Among the secondary sources, the survey also relies on the data of the Central Statistical Office.

The base of the primary research was provided by a one-year-long complex questionnaire survey carried out in the districts to be developed by a complex programme.

The scope of districts to be developed with a complex programme was defined in Government Decree 290/2014 (XI.26) in 2014. The delimitation was based on a complex indicator measuring the socio-economic and infrastructural development of the regions, which included indicators of the social and demographic situation, housing and living conditions, and the local economy and labour market, as well as infrastructure and the environment. Based on this delimitation, the range of districts to be developed with the complex programme was selected in such a way as to outline 10% of the country's cumulated resident population, as well as the group of districts with the lowest index values (Hungarian Government 2015). Based on the above, the area considered as the basis of the questionnaire survey is highly disadvantaged in several respects. At the same time, the relevance of choosing these regions is given by the fact that the share of rural settlements and that of rural population in these territories exceed the national average. While in 2019, 11% of the settlements in the whole country had urban status, in which 70% of the population lives, in the districts to be developed with a complex programme 9% of the settlements were cities, which at the same time only comprised 41% of the population. Accordingly, the share of the population living in villages in the districts to be developed with a complex programme approached 60%. In addition to the above, the relevance of choosing these areas is given by the fact that, in the rural areas of the districts of the spatial segment, there are labour market challenges in a broader sense which are present in many respects, including the employability of small villages, mobility difficulties, and the cumulative emergence of labour market opportunity disadvantages (Alpek, Tésits and Hoványi 2018; Siptár, Tésits and Alpek 2016).

The target group of the investigation were the jobseekers, especially those who were eligible for Employment Replacement Support during the period of the examination or had been previously engaged in public employment, but were in the job search status during the period of the survey. Throughout the study, 504 people were interviewed; the filling was done on a voluntary basis with simple random sampling. Based on the received questionnaires,

48% of the respondents resided in a disadvantaged area settlement with city status. The sample reflects well on the structural distribution of jobseekers in terms of qualifications; almost half (44%) of the participants only had an eighth-grade elementary education, while only 16% had a degree. The questionnaires examine the employability conditions of jobseekers in disadvantaged areas through 11 groups of questions. These issues address the challenges and difficulties, as well as the individual, internal, environmental and external factors that appear in connection with the workforce integration and employability of the target group.

The processing of the experiences of each questionnaire was organised and structured after appropriate encoding with MS Access 2013 database management software, which also provided an opportunity to orderly query, make statements and explore certain correlations of the information set. For some data sorting, re-encoding solutions, and for the calculation of descriptive statistical parameters, MS Excel 2013 was applied. Other statistical operations were carried out with IBM SPSS Statistics 22.0. In order to upload the attribute tables of the digital maps and to sort the data groups, Libre Office 3.6 was used. Some of the illustrations were made with a vector editor programme, namely Adobe Illustrator CC.

Results

The conceptual, territorial and structural frameworks of employability

If we move from approaches focusing on individual and soft factors towards a more comprehensive definition of employability affecting a significant part of the socio-economic system, then, in the broadest sense, this can be considered as the probability of finding employment on the job market (Kiss 2014) or as the ability of acquiring or keeping a job (Kun 2008; Hillage and Pollard 1998; Harvey 2001). A similar message is carried by the related study of Nemeskéri (2014), which defines employability primarily as a match between the expectations of employers and the capabilities of the jobseekers (job applicants); specifically, a person is considered well-employable if he/she is able to meet the expectations of the employers in the given time and place (!). Several authors also emphasise the role of the conditions and the environment, pointing out that employability is a highly context-dependent

concept that, alongside the alignment of supply and demand, is also influenced by several external factors. Here we mean the narrower (e.g. marital status, household factors, health and environment, demographic conditions) and wider (urban environment, mobility situation) socio-economic conditions of the individual (Thijssen 2000; McQuaid and Lindsay 2005; McQuaid 2006). As Tomasz (2010) also emphasises – primarily in the context of transition from the education system to work – besides the supply-demand relationship, the different disciplines also highlight additional aspects in the examination of important career paths for employability. From the point of view of sociology, the individual plays a decisive role in the issues of social structure and institutions of psychological research. The effect of external and contextual factors on employability appears as an important factor in the employability process model of Forrier and Sels (2003), focusing primarily on the availability of jobs. In connection with this concept, the importance of the socio-economic environment elements is emphasised along many dimensions by McQuaid and Lindsay (2005). Their model takes shape, partly in the personal circumstances (household conditions, including the number of dependents, safe housing, access to resources, including income status and social capital), and partly in the so-called external factors (such as the sectoral distribution of the labour market environment – sectoral distribution of demand, structural relations – macroeconomic stability, job characteristics and recruitment conditions, e.g. the presence of discrimination). Hillage and Pollard (1998) also emphasise the importance of environmental factors. In their definition, employability partly appears in the context mentioned above (an ability to acquire work, to move in the labour market, and to emphasise individual qualities), but the quality of the labour market environment is also an important element of it.

These broader approaches provide the basis for developing the model that makes the measurement of employability possible. They define the range of actors through which the phenomenon can be indexed, including here the side of the employers (the labour market environment, approaches of the demand-side), and the employees or jobseekers (the previously indicated properties and social environment of the individual that can be described as partially subjective and partly objective factors, approaches of the supply-side), as well as the relationship between the two (mixed approach). The range of indicators that can be considered along these dimensions is extremely broad; moreover, and as explained in more detail below, this also depends

significantly on the social group in which the issue of employability arises. Kun (2008) gives a summary of the elements of employability, identifying among the factors the ability to adequately satisfy basic needs, housing, clothing, the existence of documents required to work, solving the care of relatives in need, the ability to reach the workplace, health status, knowledge, abilities and skills, legal knowledge and other psychological factors. Thijssen (2000) goes further on the issue when, during a triple interpretation of employability, he sees all factors related to the phenomenon in the broadest approach (whether it is an individual or an environmental indicator) as affecting the labour market position of the individual.

In order to measure employability, it is necessary to clarify whether we look at the phenomenon from the supply side or the demand side, with respect to which target group we interpret it as. At the overall social level, the role of those people who, because of one of their characteristics, start with a disadvantage in the competition for workplaces and/or despite their economic activity, will be permanently excluded from the labour market. In this sense, the group of people with low educational attainment (Kun 2008; Adorjáni 2011), and those with further labour market disadvantages, are especially important, including long-term jobseekers, young people, entrants, disabled, and people over the age of 50. The importance of examining these disadvantaged groups is enhanced by the fact that, with the improvement of their employability, the dynamism of the domestic workforce can be significantly assisted; however, the question of employability cannot be approached only from the dimension of disadvantaged social groups. The work of Forrier and Sels, published in 2003, examines the changes in the conceptual dimensions of employability since the 1950s. One of the lessons learned – important for the present study – from the presentation of the examined periods, is that, in the last decades the number of target groups taken into account from the viewpoint of employability has undergone significant change. In the 1950s, this issue was primarily related to the challenge of mobilising economically inactive people. In the 1990s, employability was the subject of several studies in relation to the total active aged population. Given that the purpose of this index is to measure the widest possible extent of employability involving a broader social circle, the examined factors cover – if possible – the total active aged population. Within the group of jobseekers, the study places emphasis on the employability conditions of disadvantaged people and on the possibilities of improving them.

Another aspect of indexing employability is to take into account the role of employment policy, employment strategies and social policy, namely how to integrate labour market services as well as passive and active employment policy instruments, and the role of aid, into the model during the measurement of employability. The issue is addressed by many sources (Schmidt and Gazier 2002; Jacobsson 2004; Lefresne 1999). In the model of McQuaid and Lindsay (2005), employment policy is listed among external factors, including access to public services, leading jobseekers towards the labour market, access to training, local and regional development policies, accessibility to public transport, as well as childcare and other services. In the “employability-link” model, the training available to the individual emerges as an important dimension, based on the fact that said training increases the number of available jobs (Thijssen et al. 2008). Further elaborating on the message of the model, all such issues are important factors of employability, e.g. labour market service that extends the range of jobs available to an individual. This is achieved by providing temporary employment, information on available opportunities, or help in finding a job through extensive counselling and training. That is, the indicators measuring the availability of active and passive assets as well as the labour market services and subsidies are important indicators of employability.

Finally, the issue of employability is also raised in the context of public work programmes, as the support tool has considerably increased the employability of disadvantaged and highly-disadvantaged (C-type) low-educated people. In addition to all of this public work, which has contributed to the transformation of the domestic labour market structure, the Start work programmes in particular have shown a strong regional focus towards the areas to be developed by a complex programme. The role of the programmes is also significant because the employability of jobseekers with low educational attainment is significantly reduced by their qualifications. Within the private sector, the manufacturing industry can use a larger proportion of their workforce (Adorján 2011). The situation is reassuring, given that, in the period between July and September 2017, 39.6% of the more than 53,000 vacant positions in the private sector were recorded in this sector by the Central Statistical Office, but from a territorial point of view, the issue is considerably more nuanced. Most of the vacant positions are concentrated in the Central Hungarian as well as the Western- and Central Transdanubian regions. The latter fact also draws attention to the issue that an indispensable

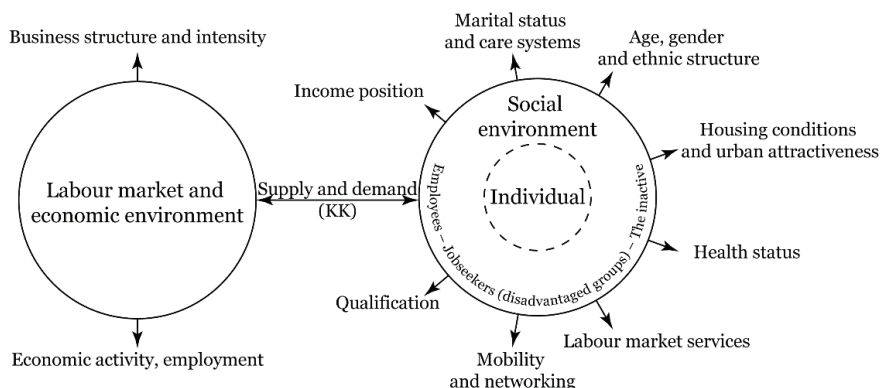
element of a model measuring the territorial specificity of employability is the integration of spatial mobility indicators.

From the above overview, it is apparent that the concept of employability can be approached along several factors; therefore, the complex indicator providing the real value of the phenomenon can only be created if the conceptual framework of the measurement is precisely defined. To achieve this, it is necessary to link one additional factor, namely spatiality, with the notion of employability. In the works reviewed above, spatiality appeared as a special dimension with a lesser emphasis; at the same time it was placed indirectly among the indicators through the mention of mobility – primarily spatial mobility conditions and structural elements of the labour market environment. The present study approaches the concept of employability mainly from the territorial employability perspective. *Accordingly, the present work understands employability as the labour market potential of a population in a spatial segment – or a group of the population – with the three main elements of employability being economic environment (including labour demand), labour supply and human resources (social relations), and the quality of the relationship between the two factors (Figure 1). Employability in a narrower sense means the ability of the individual to integrate into the labour market and, in a broader sense, the ability to build long-term and satisfactory career paths.* If the value of territorial employability is high, then the employment conditions are favourable (employees and businesses), and/or the quality of the available human base (jobseekers, employed and economically-inactive people) is outstanding in the given settlement. In this case, the socio-economic, and particularly the employability, situation of the population of the spatial segment is favourable.

The separation of the three sides and the delineation of the individual dimension were based on the following considerations. We classified the factors according to the economic environment, which may have an increased impact on labour force demand through the primary labour market, i.e. some factors related to the demographic parameters and presence of enterprises (employment rate, enterprise density, etc.) may have been included here. At the same time, we also classified, according to the economic environment, the factors which help to quantify the potential labour force volume available on the labour market, i.e. to approximate the amount of labour force available in principle or available in the long run. The broadest framework for this is the working age population. The category is typically narrower, but the active

population provides a particularly important dimension of employability in terms of labour market activity.

Figure 1. The model of territorial employability



Source: own editing (2017).

Indexing employability according to this model is based on the measurement of two sides of a given area, as well as the measurement of the relationship between them with specific indicators.

The social environment was given a two tiers. Its first layer consists of sub-indices and groups of factors that can directly or indirectly influence the territorial chances of the individual in the labour market, but can be filled with more objective, measurable indicators, which are presented and explained in detail below. However, these factors can also be influenced by a number of individual elements, including, for example, job seekers' and employees' preferences, motivations, the labour market, and employment-related – in many cases subjective – expectations, opinions, and willingness to move. The assessment of the latter factors may become possible based on, among other things, a targeted questionnaire survey of the population. It is also important that, based on the individual's judgment, it could be possible to weigh more objective social factors and, where appropriate, the groups of economic environment, given that each factor may weigh differently depending on how difficult it is for the individual to overcome the emerging challenges. This consideration may provide a basis for the development of weighted territorial employability indicators at a later stage.

Among said indicators, the labour market environment (economic environment) includes the elements of the demand-side labour force that are of outstanding relevance from the perspective of employability, which are examined by the model through two indicator classes. The variable group named *economic activity and employment* is based on the dimension of the economic activity and inactivity of the population. However, the group *enterprise structure* at the same time focuses on a number of factors that are of relevance to employability, which measure the quality of the local business environment, including, among other elements, the density of businesses, business size, income from entrepreneurial activity, the average statistical headcount, and gross added value.

Another element of the model is formed by the local society, highlighting the dimensions that are of the utmost importance for employability. The many subjective features of the individual are the central element, for which statistics are not available, or only available to a limited extent. The examination of these factors was carried out through the questionnaire survey indicated in the research methods section. In addition to the individual level, many more quantifiable factors of the population in the given settlements are part of the model, and by also taking into account earlier conceptual definitions, the essential elements of employability can be measured.

The significance of the *income position* variable group for the present study means that, with the increase in income, the other conditions of employability are more likely to be satisfactory (better hygiene conditions, housing conditions, in connection with the previous ones more favourable health status, better access to factors improving mobility, at the same time the expansion of the scope of possibilities, etc.). Thus, the employability level of settlements with a more favourable income condition population – and exponentially in the case of the accumulation of favourable effects – may be higher overall. Approaching from the point of view of poverty, the relationship between income conditions and the unfavourable labour market situation is partly related to the increase of hysteresis due to impoverishment (Csoba 1994).

The second group of variables includes the questions about the age, gender and ethnic composition of the population in the model. The importance of the indicator class is that the level of employability is closely linked to the situation of the ethnic minorities, women and the elderly, as these groups may face disadvantages in the competition for workplaces along different

dimensions. Nagy et al. (2015) emphasise that marginalised social groups living in rural areas maintain their own unfavourable position through their daily activities, which is amplified by the lack of factors that are also present in the model. The poor access to jobs, unequal salaries, low availability of public services and lack of civilian activity should be included.

The *family status and care systems* group reflects primarily on the difficulties of employability of single parents and large families, including those families in which there are no employed, and where possible, thus optional – in addition to income difficulties – labour socialisation problems are more likely to occur. If the placement of the child(ren) is unresolved (the lack of nurseries, inadequate quality and saturation of kindergartens, difficulties in going to school), then the mobility, and in a wider sense the elasticity, of the jobseekers is greatly resolved, which through interactions can also change employability. In those settlements where the placement of people in need of care is not resolved, however, if the proportion of these groups is overrepresented, then the increase of employability faces serious challenges.

The dimension of *housing and urban attractiveness* is based on the fact that, in the case of employability – whether examining the possibilities of finding and maintaining a job position, or atypical work – those people or areas are in a more favourable situation where appropriate housing conditions allow for effective participation in the labour market, and possibly even working from home. Inadequate housing conditions, in addition to posing a health risk, prevent an individual from adequately relaxing or developing him/herself at home. This will reduce the quality of the job search and ability to maintain a workplace. At the municipal level, housing conditions mainly refer to the ratio of non-comfortable or semi-comfortable apartments, while other variables for the measurement of housing conditions refer to the current housing conditions of the local population, which also measure the overload of the housing stock. At the same time, the attraction is based on the balance of the immigrants and the emigrants, as well as the built and demolished apartments, which make the dynamism and development of the settlement easier to understand.

Health status affects employability through multiple fibres: on the one hand, the existence of certain diseases limits the ability of the individual to fill in certain jobs, and, on the other hand, the reduced ability to work or poor health condition make it difficult for an employee to find a job or to perform workplace tasks.

The range of *labour market services* includes all labour market instruments that aim to improve the employment prospects of the population – and are not categorised into other indicator groups. The dynamisation of the still-available active aged labour force can be assisted by increasing mobility and/or the efficiency of the job search, as well as ensuring the widest availability of labour market services, and thus these are important factors in measuring the levels of employability.

The significance of *mobility and networking* in the 21st century, in many areas of the economy, is of key importance. From the point of view of employability, this variable group measures the availability of settlements on the one hand (with special regard to the main elements of the transport network, in the dimension of motorways and the accessibility of employment centres, and primarily the accessibility of regional centres), while also taking into account, on the other hand, the population's coverage by means of public transport, and in particular passenger cars. An additional element of the integration of the region is the increasingly important extent of connectedness to electronic networks due to the spread of digitalisation. This study primarily quantifies the above-mentioned connectedness based on the proportion of households with the internet.

The qualifications of the population essentially affect the employment chances of the individual; the related variables – as explained below – pertain to employability through several dimensions. Furthermore, if the proportion of people with higher education – and/or those who are better adjusted to the labour market expectations and trends – is rising in an area of a map unit, they can become the basis of such socio-economic processes that assist the formation of differentiated sectoral concentrations and the strengthening of positive externalities, thus increasing the enterprise's attractiveness and stability of the region. In this context, if the qualifications of a region are favourable – despite the fact that the development of the economic environment is below the national average – the area may become the local centre of growth in the event of economic prosperity, and thus it can be the basis for the territorial spread of the economic centre.

Finally, the nature of the relationship between the two sides can be approached from the perspective of the labour market balance, or the lack of it; that is, through the problem of unemployment and labour shortages. This question involves, in large part, subjective elements (e.g. intent of work, meeting putative or real employer expectations, black work, pay levels and

employee expectations, and jobseeker preferences). On the other hand, it can be grasped by the number of vacant positions, by the regional distribution of the proportion of jobseekers over natural unemployment rate, by the proportion of long-term jobseekers or – in case of an examination covering more periods of time – by dynamic labour market metrics (e.g. by the changing ratio of jobseekers to the economically-active aged population).

The measurement of employability also raises the need to designate the group under investigation, as the question can be formulated – as explained above – either for the whole population or for one of its subgroups. From the point of view of this approach, the quality of labour supply plays a prominent role within the entire population, since it represents the employability of the still available, but economically active, and therefore theoretically workable, labour reserve. In the case of a high number of jobseekers, economic prosperity and proper integration into the global labour market environment can be the source of further development. To what extent depends, in large part, on whether the quality of the available workforce satisfies the challenges of the modern age and the expectations of the employers, as well as what share of the proportion of disadvantaged groups this represents and to what extent is the accumulation of disadvantages present in the group. The problem of long-term jobseekers is particularly emphasised in this area, which is one of the main indicators of employability, as the labour market (re)integration of low-skilled labour can be delayed and the proportion of long-term jobseekers may increase. The spatial-based indexation of employability can be achieved by using a complex indicator through the operationalisation of the above categories.

The dominant factors affecting the employability of disadvantaged people

Although the above model aims to understand the widest possible range of employability (in this case the entire population), it provides a general framework of measurement, and the problems which emerge are especially difficult in the case of jobseekers living in disadvantaged areas and settlements. In the present study, this was achieved through the processing of the results of the above-mentioned questionnaire survey. If the focus of the problem is placed on these people, it is possible to increase the validity of the model by the empirically-based weighing of each indicator class. If each variable group

does not have the same significance, then by incorporating the appropriate group-specific weights, an index can be formed that measures employability more accurately.

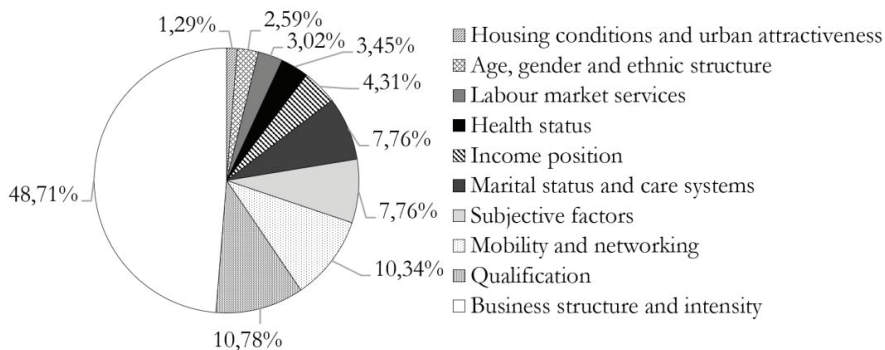
From the point of view of employability, the characteristics can be divided into two groups according to whether they are a necessary condition for proper labour market participation (acquisition and retention of a job) or a source of potential competitive advantage. In the latter case, in addition to finding a job, the particular characteristic plays a decisive role in the efficient construction of career paths. This study, based on the questionnaire survey, showed that, in line with the increase in qualifications among the jobseekers, the factor generating competitive advantage increasingly appeared: only 28.5% of those with primary education reported such a characteristic, compared to 65.3% of those with secondary education, as well as 68.8% of those with higher education qualifications respectively. In the case of low-education graduates, reliability and self-confidence – as potential competitive advantages – received the highest frequencies of mentioning among the surveyed jobseekers (together, almost 50%), and in the case of secondary school graduates, these advantages were supplemented by emphasising the presence of a profession or, less frequently, a language proficiency. Among the mentioned characteristics based on the questionnaire survey, more than 30% of people with adaptability- and proactivity-related factors were included in the group of secondary school graduates. The proportion of those with low educational attainment was only slightly above 13%, compared to 35.3% for those with higher education. That is, it was apparent from the study that an increase in the level of education features is likely to appear – or is in the field of view of the individual – which has a direct, strong impact on the labour market situation and is therefore an important indicator of employability. With increasing qualifications, communication skills and empathy have also shown a rising proportion. It is important to emphasise that self-reported responses, to a great extent, depend on the self-knowledge of jobseekers. Thus, the fact that the prevalence of competitive advantages increases with increases in the level of qualifications can also mean that those with higher education qualifications have a higher level of self-knowledge, or at least have a deeper understanding of labour market competence expectations. In the context of the above, although the potential competitive advantages are dominated by individual attributes (including, for example, the presence or lack of experience in the given field, but also the amount of effort an individual

is willing to exert in finding and retaining a job), which is a serious challenge when measuring at settlement level, the question can be approached, as well as indexed, through the quantification of qualifications.

The necessary conditions for employability can be further broken down based on the model that the references are mainly related to one of the above-mentioned elements of the labour market environment or the social environment. Based on the results, in the group of disadvantaged jobseekers, the factors of the social environment reached a higher proportion (51%) of the two pillars; specifically, all in all these factors contributed significantly to the development of employability disadvantages of jobseekers living in disadvantaged areas (Figure 2). If the role of individual characteristics is treated separately – as these largely include subjective factors such as lack of real work intent – (that is, the proportions are calculated without mentioning the frequency of individual factors), then the share of the business environment exceeds 53%.

Figure 2. The distribution of the necessary conditions for employability in the disadvantaged group of jobseekers living in disadvantaged areas

(Factors that make finding a job most difficult)



Source: own survey (2017).

All but one of the categories in Figure 2 relate to the “Social environment” of the model, while “Business structure and intensity” represents the “Economic environment”. In terms of the intensity and structure of entrepreneurship, the difficulties are shown, on the one hand, in the presumed or real shortage of available jobs for the jobseekers – 61.95% of those questioned stated this – and, on the other hand, in the adaptation disorder of the jobseeker and the

“expectations” of the job (38.05%). The latter difficulty arises primarily in connection with the seasonal and multi-shift employment opportunities and working arrangements. In the case of adaptation problems, if the jobseeker wanted to find a job at all costs, he/she would be able to do so, but his/her health status or qualification would not make lasting and balanced work – which is satisfactory and sustainable for the employee – possible, or, where appropriate, only lead to jobs where the whole year-long employment is not resolved.

The transition between the vacant jobs and the problems of adaptation (in the survey, these answers are classified in the latter round) is a question of pay demand. Although the pay preferences of the jobseeker can be freely formed in principle, because of the basic costs of living – especially if the number of dependents increases – despite his/her employment in certain jobs, he/she cannot permanently maintain his/her employability. The reason for this is that the inadequate satisfaction of basic needs will undermine work performance, thereby reducing the ability to comply in the job. Among the major hindering factors in terms of employability, around 6.2% of the jobseekers who highlighted the business environment identified such salary-related factors as limiting placement in the right workplace.

It is worth mentioning those in the group who were in a “temporary” labour market position when filling out the questionnaire. They ticked, as the main obstacle hindering their employability, the lack of job opportunities and that of choice. Although they can typically find a job – almost 15% of them pointed out that although it had not been long since they gave up their job, they had already received a new job offer – at the same time their possibilities to build career paths are limited, because jobs that provide a suitable atmosphere for their long-term prospects for advancement and development opportunities are not available in the region. (The proportion among those who ticked the insufficiency of the business environment when completing the questionnaire reached 17.8% as the primary barrier to their employability.)

The perceptions about the low number of jobs and opportunities reflect on the asymmetrical situation according to which vacant jobs appear primarily in the economically more favourable regions of the country; the disadvantaged areas, in particular the rural settlements with a lower employability potential, are out of the question. The challenge will be increased if the new employers or staff enlargements occur in sectors – in relation to the employability situation of disadvantaged jobseekers – that are limited to the people concerned.

On the side of the social environment, among the factors that are most hindering for increasing employability – with decreasing weight – are the problems related to qualification, the tensions of mobility, the individual “subjective” characteristics, the marital status and unfavourable income situation, all of which exceeded 4% of the shares. Due to the nature of the “mobility opportunities” indicator class, it includes the disadvantages of the availability of jobs (with 91% of the remarks) and the issue of networking, which appears primarily through the tensions of relationship network and access to information. Although the role of networking is intensively growing in almost all areas, it is clear from the study that, if we examine the group-specific issues of employability and relate them to the disadvantaged jobseekers, we find that the physical constraints (distance, travel costs and time, and the low availability of means of transportation, especially the passenger car) are more commonly encountered as a final barrier than personal relationships or the lack of information. In the dimension of qualification, among the factors that significantly hinder employability was the inadequate degree of education, and primarily those with low educational attainment. The respondents with secondary and higher education mentioned this group of variables mostly in connection with the profession or the lack of additional knowledge (driving licence, language skills, etc.). The marital status and the income position featured a particularly homogeneous internal structure within the answers. In the former case, the placement of the child(ren) is almost exclusively a limit (mostly in the physical sense). The income situation was mentioned by 4.33% of the respondents as the main barrier hindering employability, but the role of this group was increased by the fact that approximately 43.62% of the disadvantaged jobseekers who filled out the questionnaires stated that their financial position was extremely unfavourable; the payment of the bills was a regular problem. The reason why the income situation in itself appears as a primary barrier in a small proportion of cases is partly related to the fact that the respondents found and mentioned other factors resulting from financial difficulties as the most serious barriers to their employability (e.g. health status, problems of mobility).

Individual qualities finished in third place – within the pillar of social environment – with said qualities covering dominantly subjective factors that are related to the motivations and/or the employment experiences of the respondents. In addition to the low level of work experience, the most serious challenge is the lack of motivation, which appeared in approximately

60% of the individual factors (sometimes as a single factor, but often with other elements, e.g. in the context of distance disturbance due to frequent disagreements with colleagues).

The elements related to health status, labour market services, discrimination according to age and gender, and ethnic compositions as well as housing, exhibited a lower frequency of mentioning. The references to health status were homogeneous and were associated with the reduced ability to work (less often as a result of an accident, and more often in the case of disease or elderly illness). Among the opinions on labour market services and active employment policy instruments, the lack of training was more pronounced. In the dimension of discrimination according to age, gender and ethnic features, 4.2% of all respondents said that they had already perceived something like this in the labour market; 2.6% experienced it as the most severe limitation to their employment. In terms of housing and attractiveness, the majority referred to the inadequacy of their own housing conditions, with around 25% of the mentions referring to the conflict-laden atmosphere of the settlement or the problem of segregation.

Discussion

The purpose of the present study is to develop the theoretical elaboration of the model for the measurement of employability for spatial segments, to conceptualise the phenomenon, and to then interpret said phenomenon in relation to the group of jobseekers living in disadvantaged areas and settlements.

Based on the analysis of the literature on employability, its development and other factors related to the issue, this analysis defined a possible approach to territorial employability through the supply and demand side of the labour market. The individual dimensions can be further broken down based on the literature and on the experiences of the questionnaire survey; accordingly, the labour market/economic environment includes the enterprise structure of the region (settlement) and the indicators of the economic activity of the population. The social environment can be partially approached from the individual perspective and, in many cases, from the subjective qualities (e.g. willingness to work, flexibility) perspective; indeed, this environment includes the income status of the area, the age and gender of the population,

as well as that population's ethnic structure, marital status and the related welfare systems. This is complemented by the housing conditions and the attractiveness of the settlement, as well as the health status of the population, the available labour market services, the mobility opportunities of the settlement and integration into the local and global networks, as well as qualifications. The relationship between the two sides can be related to the balance of the labour market and its lack, namely with the problems of unemployment and labour shortage.

The present study confirms that employability is such a group-specific phenomenon that, when measuring, it is necessary to use the weights of the examined groups to take into account their own experiences, preferences and positions, as each variable group does not have the same effect on the quality of employability for the jobseekers living in the districts to be developed by a complex programme. This analysis breaks down the measurement of employability into two elements. On the one hand, it examines the necessary labour market conditions for employability, which can be well indexed through the quantification of the indicator classes formulated in the secondary literature analysis (the role of individual factors is smaller). On the other hand, it handles the knowledge related to a successful career path based on a broader understanding of the concept of employability, which is largely made up of subjective elements.

The analysis examines the effect of both sides (labour demand and supply) on employability in the case of jobseekers living in disadvantaged areas, which points to the fact that, with the decreasing frequency of mentions of suitable conditions for adequate employability, the intensity and structure of entrepreneurship (economic environment in a broader sense), qualification, mobility and networking are the most significant challenges. Regarding the extended interpretation of employability, based on the frequency with which each factor group was mentioned as a constraint and providing a basis for weighing a future index, it has been shown that elements of the social environment are almost as important a constraint on employability as the economic environment. At the same time, the centres of gravity differed strongly for the groups of factors in the previous section. Within the social environment, other individual factors reached a share of nearly 8%.

All of the indicator classes describing the necessary conditions for employability were also included in the empirical survey, which can be well measured in the majority of the cases in the form of variable groups. Thus,

the relevance of the factors under consideration can be determined from the point of view of weighting and the order can be set up during group-specific measurement of the employability of disadvantaged jobseekers. The present study provides a measurement framework for understanding the spatial structure of employability and a theoretical background for the creation of an index to be elaborated on by the authors. This will reveal the settlements and regions, as well as the bottleneck cross-sections, that are the most challenging in terms of activating the available workforce.

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