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New paths of economic development: increasing role of organisational innovation and organisational learning

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1. Relevance and significance of the topic

After the post-transitional crisis, one of the most crucial social problems in Hungary is the low level of employment rate. During the transitional crisis the number of employees decreased by 1.3 million and touched the bottom line in 1996 with 3.6 million employees. Surprisingly enough, this number has not increased significantly since then. The level of employment had decreased by 26.5% from 1990 to 1996 which was followed by a modest increase of 9% until the mid-2000s. The majority of this employment growth was mainly eaten up then by the global financial crisis and economic downturn. There was almost 4.2 million employees in the third quarter of 2014 which means that the employment rate among the population aged between 15-64 years was only 63%. The share of the public sector in the employment was almost 30%, the number of employees in this sector reached 1.2 million (KSH, 2014, p. 5-6.). The low level of employment represents significant constraints for the government's budget, especially in the context of the demographic challenge of the ageing society in 21st century. But this has a negative impact on the social inequalities and discrimination. According to the latest research experiences (Bakó et al., 2014), around one million people are employed in the periphery of the labour market. These precarious employment statuses cover jobs with low and uncertain wages, temporary or occasional employment opportunities for unemployed with or without unemployment benefits, young entrants to the labour market, as well as former employees trying to reintegrate themselves to the labour market after parental leave. According to the latest research results, one and half million people in Hungary live in a household where the only active person is an employee in such a precarious employment status, while 3.5-4 million Hungarians live in a household where we can find at least such a person (Bakó et al., 2014., p. 3.).

At the same time, the low employment rate is only half the problem. There are not only quantitative but qualitative concerns as well with the current employment situation in Hungary. According to a recent analysis of the latest wave of the European Working Conditions Survey, the quality of jobs is the fourth poorest among the Member States after Cyprus, Greece and Portugal (Holman, 2014., p. 494.). The results show that almost three out of four jobs can be characterised as either passive when it comes to mobilise employees' skills and competencies, or insecure or stressful. In comparison, the share of such jobs is 34% in the Scandinavian countries, 48% in the Continental countries (Germany, France, the Netherlands) and the average of the transformation economies (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) is only 66.5%. This calls the attention to the fact that job quality in Hungary is worst not

only in comparison to the leading edge European countries or to the European average but also compared to the other post-socialist countries which were in a similar or worst situation in the early 1990s. The innovation performance of the work organisations shows very similar trends. A recent study of the European Commission, analysing the database of the EWCS, showed that Hungarian work organisations have one of the lowest learning and innovation potential in Europe. Only three countries are behind Hungary in this regard: Bulgaria, Greece and Cyprus.

Due to the low employment rate, low job quality together with the scant innovation potential of the work organisation the Hungarian economy is unable to take a development path that is sustainable in a long run. In my thesis I analysed the possibilities offered to the transformation economies and especially to Hungary to participate in the global value chains of fast growing learning economy. Organisational values and institutional standards play a key role in maximising the benefits of participating in the global economy. International research experiences stress that technological developments involve complex organisational and cultural changes that require individual and collective learning processes (see e.g. Nielsen, 2006 and 2012, Makó – Illéssy, 2007).

In this analysis the Varieties of Capitalism (VoC) approach was used as a general theoretical framework. The VoC approach, analysing the institutional varieties of different countries, gained particular importance since the 1990s in the international comparative social sciences and elaborated multiple typology for the matured capitalist economies. Interestingly enough, although post-socialist transformation is undoubtedly one of the most important social and economic changes in the Central and Eastern European region, relatively few attempts have been made to apply this approach to the transformation economies. Among the few exceptions we have to mention Martin (2008), Bohle and Greskovits (2012) and Éva Farkas et al. (2012). Aside from these few exceptions, international comparative researches and analyses tend to regroup these countries into one sole country cluster, despite the remarkable differences between them. However, one may suppose that these countries which showed important differences in their institutional arrangements already during the socialism, experienced very different development paths in the last 25 years and established different types of capitalism.

Three larger group of research questions are analysed in this thesis. First, we examine the relationship between the knowledge pool, the learning capability, the innovation performance of the

economy and job quality making the assumption that there is a positive correlation between these factors. The performance of an economy can be measured by multiple indicators, one of the most important ones is the employment rate, therefore we will also examine the interplay between innovation, job quality and employment. We also aimed to identify the institutional specificities which can explain the differences between the development paths taken by the transformation economies in the past 25 years. According to our hypothesis, after 25 years of social, political and economic transformation these countries show at least the same level of varieties than the 15 Old Member States. A detailed analysis of the institutional specificities of these countries and their reasons would go beyond the scope of this thesis, but revealing these differences can provide important inputs to formulate further research questions and programmes in itself.

In order to better understand the trends in the field of innovation and job quality, we will pay particular attention to the effects of the global financial crisis and economic downturn in our analysis. A recent international comparative study (Vaughan-Whitehead, 2015) of the International Labour Organisation (ILO) distinguishes two main phases of the crisis. The first one is the period of immediate shock (2007-2009) which can be characterised by economic slow-down and the increasing social problems and tensions, primarily in the employment. The system of social institutions, which have been gradually eroded since the beginning of the 2000s, remained intact in this period, thus the increase in the number of those who became entitled to some form of social provision resulted in significant budgetary constraints. The institutions of the social protection provided a twofold role: in the one hand they directly lighten the shocking effects of the crises, on the other hand they contributed to the maintenance of the domestic demand of the population, indirectly preventing further economic slow-down.

The second period of the crisis begun in 2010 and can be characterised by a radical shift in the crisis management, primarily in the Mediterranean countries struggling with significant public debt. In order to increase the competitiveness, a range of austerity measures have been introduced in the periphery of the European Union, especially in the Southern and post-socialist countries. These measures have significantly eroded all six pillars of the European Social Model, that is (1) workers' rights on working conditions, (2) universal and sustainable social protection systems, (3) inclusive labour markets, (4) strong and well-functioning social dialogue, (5) public services and services of general interest and (6) social inclusion and social cohesion.

Despite the fact that the economic crisis was not due to the social protection system which furthermore effectively worked in the first years of the crisis, the primary aim of the austerity packages introduced during the second phase was to weaken the system of different social benefits. These policies were supported by the European Commission and by other fiscal institutions which somewhat contradictory considering the fact that the primary aim of the European development strategy (Horizon 2020) is to create inclusive economic growth. The introduction of these austerity measures resulted in deepened social problems without accelerating economic growth. In contrast, in those countries where the level of public debt was relatively low and the institutions of the social dialogue remained strong, they often achieved solutions that were beneficial for both the employees and the employers.

Political responses aimed to manage the effects of the crisis had negative influence on both the qualitative and quantitative aspects of employment and proved to be unable to diminish the social costs of the economic downturn. The only exception was Scandinavian countries and especially Sweden. However, in the rest of Europe there were significant differences in the extent to which austerity measures destroyed these six pillars of the European Social Model. Despite the apparent negative tendencies, progressive and innovative measures were adopted in such countries like Germany, Austria, France and the Czech Republic, while the traditional austerity packages further aggravated the social consequences of the crisis in the Mediterranean country cluster and in the majority of transformation economies without improving the competitiveness of these countries.

2. Material and methodology

2.1 Research questions and hypotheses

During the empirical data analysis three main questions were investigated. First, we analysed the relationship between innovation activities and the qualitative and quantitative aspects of employment. Second, we also analysed the differences between European country clusters in terms of innovation, job quality and employment. By doing so we paid particular attention to the consequences of the global financial crisis and economic downturn.

Concerning the relationship between job quality and employment rate, we supposed that there is no any trade-off between them. In the contrary, these qualitative and quantitative dimensions of employment positively correlate. This means that we expected that in countries where job quality has higher scores than the European average, the employment rate will be also higher. On the other, we also supposed that – contrary to the general approach of international comparative analyses – transformation economies do not represent one homogeneous country group, we expected to show at least the same level of heterogeneity than in the case of EU-15 Member States. According to our hypothesis, these countries are in an early phase of economic transformation; therefore we cannot find stable patterns of institutional arrangement or regime characteristics which serve as a basis for country clustering of the studies inspired by the VoC approach. Instead, we supposed that the transformation economies represent such individual mixes of institutional patterns which are differing from one to another, to a large extent in some cases.

Enterprises elaborated different strategies in response to the global financial crisis and economic downturn globally and within the EU. The strategies applied by the enterprises are shaped by the institutional setting of a given country. According to our third hypothesis the crisis affected more deeply transformation economies and the Mediterranean country group which were in a precarious situation even before the crisis.

To sum up, we formulated the following hypotheses:

H_1 In those countries where the job quality is higher than the European average, the employment rate is also higher than the average.

H_2 Similarly to the previous point, there is a strong and positive correlation between innovation performance of enterprises and the employment rate. In other words, more innovative countries have higher employment rates.

H_3 We also suppose that transformation economies do not represent one homogeneous country group, we expected to show at least the same level of heterogeneity than in the case of EU-15 Member States. According to our hypothesis, these countries are in an early phase of economic transformation; therefore we cannot find stable patterns of institutional arrangement or regime characteristics which serve as a basis for country clustering of the studies inspired by the VoC approach.

2.2 Methodological framework of international comparative analyses

Despite the fact that international comparative research has a longstanding tradition in the field of social sciences, the methodology of this research stream is often problematic. The advantages and disadvantages of the different methodological approaches were best described by Marc Maurice (Maurice, 1989). In order to better understand the opportunities and constraints researchers have to face to, it is worth summarising the most important observations this study. Maurice distinguished different schools of international comparative studies on the basis of two main aspects:

   a) The first aspect is the level of the analysis, that is whether they investigate a given problem at micro, meso or macro level.

   b) The other aspect is the whether these studies are able or not to establish time series or trends or this problem remains unaddressed.

The analysis of the methodology of different comparative approaches also permits to identify the extent to which the phenomenon investigated can be considered as endogenous (embedded in the

special context of a given country) and to what extent it shows international varieties. In his paper, Maurice distinguishes three main approaches as follows:

      a) Functionalist school

      b) Culturalist school

      c) Societal effect approach (*approche sociétale*)

Functionalist approaches

In this school the main theoretical principle of the comparison is rationality. The underlying assumption of the comparison is some kind of continuity, that is any issue investigated by scientific methods can be compared country by country and indicator by indicator. For example, one may compare the unemployment rates of different countries without knowing anything about their labour relations system or specific characters of their employment regimes. Functionalist approach therefore does not pay particular attention to the cross-country differences, but treats them as residual elements of the model created, in other words these differences are considered as functional identities. The microsocial concept of organisational rationality implies that the national context of social phenomena is out of the scope of the analysis, therefore functionalist approach can be regarded as universal and culture-free.

Culturalist approaches

Culturalist approaches differ sharply from functionalist schools in all aspects investigated as the national contexts are themselves the primary objects of investigation. According to the culturalist argument the influence of the national cultures on social phenomena is so intense that country by country and term by term comparison is impossible. While functionalist approach assume a certain kind of continuity of a given phenomenon from country to country, culturalist schools presuppose sharp discontinuity between the countries and deny the possibility of universal theories. International comparison, if any, can only be made between these culturally different universes while functionalist approach suppose one continuous and thus comparable universe. It is a common characteristic of both approach that the relationship between the national contexts (or national cultures) and the phenomenon investigated is out of their subject.

Societal effect approach (l'approche sociétale)

It is a paradox that the societal effect approach aims to compare the incomparable. In fact, this school does not try to compare social phenomena by their elements automatically from country to country, instead it aims to analyse national "coherences" shaped by mutually interrelated factors which differs from country to country. The theoretical principle of the comparison is neither "rationality", nor "national cultures", rather the identification of different social agents embedded in their social relations. In this sense, the societal approach can be regarded as a special type of structuralist analyses, in which social actors are not excluded from the research analysis but on the contrary treat them as elements inseparable from the structures where structures and actors mutually shape each other. Analysis of the relations between micro and macro levels plays a central role in the societal effect approach, similarly to "actors" and "spaces" which are built up on their relationship with the society. In this approach society represents neither as a mere environment (in the most neutral sense of the word) of the phenomenon investigated, nor as a carrier of particular values and cultural traditions but the complexity of the social rapports and relations.

The societal effect approach deals simultaneously with discontinuity between the countries (excluding the possibility of simplistic comparison) and with continuity as unique social coherences become comparable in their structures and complexities. In this sense, this approach aims to exceed the limits of both the functionalist and culturalist schools not by attempting to reintegrate these two paradigms but by transposing the logic of argument. While the functionalist approach tends to de-socialise the social phenomena investigated (the low importance attributed to the national context implies this de-socialisation), one of the core aims of the societal effect approach is to identify this unique social characters and to deny the continuity from country to country resulting from this de-socialisation. In contrast, culturalist approach emphasises this unique character of each national culture, in this sense it also assume the discontinuity principle, similarly to the societal effect approach. The most important difference between these two schools is that the former refutes the possibility of cross-country comparison because of the uniqueness of the national cultures, without really investigating this national culture which is treated like a black box with the use of such vague notions as mentality, habits, etc. It is important to note that cross-country comparability and incomparability appear as the limit of the analysis in the functionalist as well as in the culturalist approach. In contrast, in the case of societal effect approach the question of comparability itself is a subject to be investigated.

In contrast to Maurice's argument, in our view we cannot establish a clear hierarchy between these approaches. The methodological choice depends on the data available, the subject to be investigated and the number of countries analysed. In this thesis we intend to analyse the interplay between employment, job quality and innovation in the EU-27 countries. This excludes the possibility to use either the culturalist or the societal effects approaches, since it is impossible to describe national cultures or coherences in the case of nearly 30 countries. In this thesis we aim to describe the general trends, while the lessons learned from this exercise can serve as a basis for further researches inspired by culturalist or societal effect schools aimed to investigate the complex relationship between these three elements in a smaller sample of countries.

2.3 Characteristics of the databases used

During the empirical data analysis five large European-wide databases are used. The Labour Force Survey (LFS) coordinated by the Eurostat is used to describe trends in employment, the different waves of European Working Conditions Survey (EWCS) led by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) is mainly used to describe job quality. The measurement of innovation is rather complex and is based on different surveys and databases. Among these we will use only the most important ones, that is, the Summary Innovation Index, the Community Innovation Survey (CIS), the European Company Survey (ECS) as well as the abovementioned European Working Conditions Survey.

The European Company Survey, formerly known as European survey on working time and work-life balance (ESWT), was first conducted in 2004-2005 and is repeated in every fourth year. The second and third waves were launched in 2009 and 2013. The ECS is a questionnaire-based representative sample survey carried out by telephone in the language(s) of the country. A special feature of the survey is that interviews take place with the manager responsible for human resources in the establishment and when possible with an employee representative. The first wave of the survey covered issues around working time arrangements and work-life balance at company level. The second wave looked at different forms of flexibility, including working-time flexibility, contractual flexibility, variable pay and financial participation, as well as accompanying human resource measures, and the nature and quality of workplace social dialogue. The third survey looked at workplace organisation, workplace innovation, employee participation and social dialogue in

European workplaces. Following the EU enlargement, the geographical scope of the survey has expanded over time. There were 21 countries involved in the first wave: the 15 old EU Member States, and Cyprus, the Czech Republic, Hungary, Latvia, Poland and Slovenia. The second wave (2009) covered 30 countries including the 27 EU Member States, Croatia, the Former Yugoslav Republic of Macedonia (FYROM) and Turkey. Third ECS in 2013 was conducted in 32 countries, including 27 EU Member States and Croatia, the Former Yugoslav Republic of Macedonia (FYROM), Iceland, Montenegro and Turkey.

The European Working Conditions Survey (EWCS) is oldest European-wide survey coordinated by the Eurofound, it was first launched in 1990 and is repeated in every fifth year. It aimed to assess and quantify working conditions of both employees and the self employed across Europe on a harmonised basis, to analyse relationships between different aspects of working conditions, to identify groups at risk and issues of concern as well as of progress, to monitor trends by providing homogeneous indicators on these issues and to contribute to European policy development in particular on quality of work and employment issues. The scope of the survey questionnaire has widened substantially since the first edition, aiming to provide a comprehensive picture of the everyday reality of men and women at work. Gender mainstreaming has been an important concern for recent reviews of the questionnaire. Themes covered today include employment status, working time duration and organisation, work organisation, learning and training, physical and psychosocial risk factors, health and safety, work-life balance, worker participation, earnings and financial security, as well as work and health. In each wave a random sample of workers (employees and self-employed) has been interviewed face to face. Following the European enlargements and interest from the EFTA countries the geographical coverage of the survey has expanded, nowadays it covers 34 countries, including the EU28 Member States, Norway, Switzerland, Albania, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey. The survey was first conducted in post-socialist countries in 2001.

The Labour Force Survey (LFS) is made in the cooperation of the International Labour Organisation (ILO), the Eurostat and the national statistical offices. The European Union Labour Force Survey (EU LFS) is conducted in the 28 Member States of the European Union, 2 candidate countries and 3 countries of the European Free Trade Association (EFTA) in accordance with Council Regulation (EEC) No. 577/98 of 9 March 1998. At the moment, the LFS microdata for scientific purposes contain data for all Member States plus Iceland, Norway and Switzerland. The EU LFS is a large household sample

survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. All definitions apply to persons aged 15 years and over living in private households. Persons carrying out obligatory military or community service are not included in the target group of the survey, as is also the case for persons in institutions/collective households.

The data collection covers the years from 1983 onwards. In general, data for individual countries are available depending on their accession date. The Labour Force Surveys are conducted by the national statistical institutes across Europe and are centrally processed by Eurostat. The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the requirements of the regulation. Thus, it is possible to make available harmonised data at European level using the same concepts and definitions, following International Labour Organisation guidelines, using common classifications (NACE, ISCO, ISCED, NUTS), recording the same set of characteristics in each country. In 2014, the quarterly LFS sample size across the EU was about 1.6 millions of individuals. The EU-LFS covers all industries and occupations. The Community Innovation Survey (CIS) based innovation statistics are part of the EU science and technology statistics. Surveys are carried out with two years' frequency by EU member states and number of ESS member countries. Compiling CIS data is voluntary to the countries, which means that in different surveys years different countries are involved. The CIS is a survey of innovation activity in enterprises. The harmonised survey is designed to provide information on the innovativeness of sectors by type of enterprises, on the different types of innovation and on various aspects of the development of an innovation, such as the objectives, the sources of information, the public funding, the innovation expenditures etc. The CIS provides statistics broken down by countries, type of innovators, economic activities and size classes.

The most important methodological novelty of the present thesis does not rely in the measurement of any of these issues. There is an abundant volume of literature dealing with measurement problems of employment, job quality and innovation. Our intent was not to further enrich this literature by the creation of new indexes or measurement methods. In our view the novelty of this thesis resides in the fact that it intends to explore the relationship between these three elements as it is described in the formulation of research hypothesis. The functionalist approach applied in the analysis allowed us to explore these basic relationships in a relatively large sample of countries.

However, exploring casual relations, cross-country differences identified in the strength of correlations as well as explaining exceptions are out of the scope of this research.

3. Results

During the data analysis we explored the relationships between qualitative and quantitative aspects of employment and innovation performance. By doing so, we focused on two key dates: 2005 and 2010. We measured the quantitative aspect of employment by the employment rate of those between 15-64 years of age. The data source was Eurostat's Labour Force Survey. The measurement of the qualitative aspects of employment is a much more complex problem, there is no consensus even in the academic community on this issue. We used the results of the cluster analysis of Green–Mostafa (Eurofound, 2012) and Holman (Holman, 2013). Both of them analysed the data of the European Working Conditions Survey (EWCS). Green and Mostafa used the 2010's wave, while Holman analysed the results of the fourth wave (2005). The former established four, Holman distinguished 6 clusters of jobs. In order to identify the changes in trends from 2005 to 2010, we created two variables. The first one was the share of employees working in the best jobs, the second regrouped the employees working in moderate to high quality jobs. The first variable was created by simply adding the share of employees working in the two highest quality job quality, the second variable shows the share of employees working in the top three job quality clusters.

There is a plethora of definition and classification in the innovation literature as well. From among the variety of the indexes and indicators, we used in the empirical analysis the rate of enterprises introducing any kind of innovation from the CIS. Another research stream (Valeyre et al., 2009) focuses on the learning and innovation opportunity offered by different jobs. This analysis distinguished four clusters of jobs on the basis of the fourth wave (2005) of the European Working Conditions Survey. From this analysis we took the share of employees in the top and top two job clusters. Valeyre et al. suggested to use a simpler index able to capture learning and innovation dynamics of jobs. They calculated this Innovative Work Organisation Index (IWOI) for 2005 on the basis of four variables measuring two main job characteristics: namely the learning intensity of jobs and the level of employee autonomy. In this thesis we calculated IWOI for 2010 as well in order to measure trends in time series. The next table summarises these variables.

Table 1: Variables used in the empirical data analysis

Quantitative dimensions of employment	Qualitative dimensions of employment	Innovation indicators
Employment rate (Eurostat LFS)	Share of employees working in the two highest quality job clusters (EWCS)	Share of enterprises introducing any type of innovation (CIS)
		Share of employees working in learning and flat work organisations (EWCS)
	Share of employees working in the three highest quality job clusters (EWCS)	Share of employees working in learning work organisations (EWCS)
		Innovative Work Organisation Index – IWOI (EWCS)

Source: own compilation

During the empirical data analysis we created our own database on the basis of the above presented variables and we also added own calculations when it was needed like for example in the case of IWOI 2010 which is first published in this thesis. In order to verify or reject our hypotheses we made correlational analyses between the abovementioned variables.

According to our first hypothesis, there is a positive correlation between the level of employment and job quality and there is no trade-off between them. In order to verify our hypothesis, we computed Pearson correlation coefficient. The results for 2010 showed that the employment rate and the rate of employees working in organisations belonging in the top two job quality clusters positively correlated and this correlation was strong, medium-strong. As otherwise stable relationship between two variables may change in turbulent times, we also computed the Pearson R Test for 2005. The results verified our presumption, even stronger positive correlation was found between job quality and employment rate. Consequently, our hypothesis according to which expansion in employment rate cannot be achieved through the erosion of the working conditions and job quality, proved to be verified.

In our second hypothesis, we supposed that a positive relationship can be established between the employment rate and the innovation. Our results verified this hypothesis, each of the innovation indices used in the empirical analysis, positively correlated with the employment rate, the strength of the correlation between medium and strong. We found that in 2005 the innovative work

organisation index did not only correlated with the employment rate but this correlation was strong. To sum up we consider that our second hypothesis was also verified.

Table 2: Relationship between employment rate and innovation (values of Pearson R Test)

	Foglalkoztatási ráta	
	2010	**2005**
Share of innovative enterprises	0,612**	0,590**
Share of employees working in learning and flat work organisations	0,614**	0,583**
Share of employees working in learning work organisations	0,657**	0,520**
Innovative Work Organisation Index	0,642**	0,708**

** = significant at 0.1 level

Source: own calculations

According to our third hypothesis, the transformation economies do not represent a homogeneous country cluster, therefore we will find as much differences as in the case of 15 Old Member States. The results verified this presumption and the differences between the transformation economies further increased due to the global financial and economic crisis. When it comes to employment, job quality and innovation, the performance of Estonia, Latvia, Slovenia and the Czech Republic was outstanding. One possible explanation of the heterogeneous patterns among this country group is that these countries are in an early state of capitalist transformation and therefore there are no stable country patterns or regimes in the field of employment and innovation like in the case of some more matured capitalist countries. Furthermore, with the exception of Poland, these countries are relatively small economies, they are more dependent from the changes of the global market, and consequently regime typologies are less valid in their case.

4. Conclusions and recommendations

Beside the verification of the abovementioned hypothesis, our analysis shed some lights on others interesting tendencies. First, significant differences were identified within the Continental country group: Germany, the Netherlands and Austria lead this country cluster, while France, Belgium and Luxemburg are lagging behind. The performance of the first group is very close to the Scandinavian country group, while the other three countries are about the European average. Second, as we already indicated, the leading edge group of the transformation economies consists of Estonia, Latvia, Slovenia and the Czech Republic. Third, we also found significant differences between the UK and Ireland, usually integrated into the Anglo-Saxon or Liberal cluster of countries. These differences call for extending the analysis by further variables such as the size of the domestic market, intensity of export activities, economic structure of the countries and their embeddedness into the global value chains and so on. To find convincing explanation to these differences within the country clusters is one of the most important research challenges of the thesis.

Differences between the post-socialist country group also need further investigation to identify the reasons why do some of these countries perform above the European average, while the majority of them is significantly lagging behind. The results show that there is a relation between country clusters and innovation performance but this relation is not deterministic at all, other factors may also play important role. In order to draw conclusion either on the three investigated variables or on the convergent or divergent tendencies between the country clusters, we also should expand the time span of the analysis. The results call the attention to the fact, that the decrease of job autonomy was the most important and direct effect of the global economic crisis in all European countries. Another consequence was the increase of the differences between the EU Member States. It is a vital question for the whole EU whether the divide from North-West to South-East will remain long lasting or prove to be provisional.

As concerning the innovation performance of the European countries, one of most striking results was the differences identified by the size of the enterprises. In the case of the Mediterranean and Post-socialist countries the innovation performance of large companies was significantly higher than the small and medium-sized ones. Therefore the overall innovation performance of these countries can be improved primarily by promoting innovation activities of the SME sector. We also argue that

European work organisations worth more attention from researchers, policy makers and other stakeholders as well. Work organisations can ease the introduction of both technological and non-technological innovations by mobilising their human, structural and relational capitals. Knowledge and competencies of the employees (i.e. the human capital), organisational arrangements and job characteristics (i.e. the structural capital) and the external relations of the organisation (i.e. relational capital) define together the innovative capability of enterprises, while these capabilities are a necessary precondition of any innovation activity.

The most important lesson drawn from this thesis is the verification of the positive correlation between the level of employment, job quality and innovation. However, the direction and the mechanisms of this correlation call for further theoretical and empirical research. Our analysis showed that the job autonomy and learning capabilities of employees are decisive factors of both organisational innovation performance and job quality. One of the most exciting research question is that beside these two decisive factors, what other elements of job characteristics may influence organisational innovation activity and how does these characteristics and their relation to employment and innovation differ between the EU Member States.

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