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## **CONDITIONS FOR CHANGES OF LABOUR MARKETS IN THE MODERN WORLD**

### **Abstract**

The influence of globalisation processes on shaping modern labour markets has been discussed in the paper. Particular attention has been paid to the role of transnational corporations in the process of extending companies' activities onto foreign markets as well as their influence on the transfer of resources and capacity for production and trade.

The issues related to changes in the demand for labour in the age of society based on knowledge and information have been raised in the later parts of the paper. The necessity for changes in the qualitative structure of education and employment adapted to the needs of a modern society has been presented. Future trends that labour markets are moving towards, including potential professions of the future, have been signalled.

**Key words:** labour market, corporation, production, trade

### **Introduction**

The economy of today is a combination of four subsystems: information, capital transfers, networks of transnational corporations and the traditional market of goods and services. These systems do not function autonomously but are set within a framework of mutual connections. A dynamic and multidirectional development of socio-economic processes results from dependencies and reactions taking place between the above mentioned subsystems (ed. D. Karnowska, M. Szatlach, pub. A. Marszałek, 2006, pp. 101-102).

The world has moved from the age of industrial civilisation to the age of information civilisation. Economy is confronted with new requirements posed by the external environment, and these are caused by fundamental transformations related to the domination of big multinational corporations in the world competition, and above all, to the fact that, as a result of scientific and technological revolution, knowledge has become an independent creative factor of crucial significance. The innovation race, which has reshaped market competition, is in progress. Market competition is being transformed into competition between bigger and bigger organisations. The deregulation of antitrust law has contributed to the intensification of the process of mega-mergers and acquisitions. Right in front of our eyes great automobile and aeroplane manufactures, IT corporations, banks, pharmaceutical companies and others are merging worldwide into huge giants which take control of the world economy.

The progress of globalisation, the increasing role of information and of robots, and the worldwide integration processes change dramatically the basis determining the future development of societies. Globalisation and the decisive role of knowledge and intellectual capital as well as the diminishing importance of work while the information society is developing are the fundamental changes that we are confronted with in the modern world. A rapid development and a diffusion of new technological inventions, accompanied by new forms of work organisation lead to a change of the size and the qualitative structure of demand for labour. It has become a permanent feature of the labour market transformation that the need for low qualified and unskilled personnel is decreasing dramatically, whereas the demand for highly

qualified labour is increasing. Nevertheless, one should underline the fact of the existence of the technological acceleration and the tightening international relations as well as the unstable and dynamically changing demand for labour. These lead to the labour market being more and more dynamic. The growing uncertainty as to the adjustment of the demand to the structure of the supply of workforce has to be taken into consideration. The main factor of overcoming these disproportions is investment in human capital leading to an increase in the number of people with high education; these people are more mobile and possess greater adaptation skills. Empirical studies point to the fact that education, beyond all doubt, is an important factor determining adaptation to an unstable and dynamic situation on the labour market (J. Liwiński, M. Socha, U. Sztanderska, 2000, pp. 27-86).

This article is intended to cast light on how globalisation and the changes occurring in the cyberworld dominated by new technologies influence the shape of modern labour markets.

### **Labour markets confronted with global challenges**

Globalisation stands for an increased international element in economies of particular countries as well as interpenetration and convergence of goods, services, financial and labour markets. The processes which widen the division of labour and expand markets are the essence of globalisation. These processes are well demonstrated through the tightening of international economic connections and the expansion of multinational corporations.

The progress of world globalisation is based on two basic assumptions: scientific and technological progress and liberalisation of the conditions determining the development of international trade, foreign investment and financial markets.

Increasing international competition determines dynamic and multidirectional transformations, including those on labour markets in particular countries. Globalisation “is slowly erasing state boundaries” and the ease with which capital is transferred has an impact on the elimination of border lines between labour markets of particular countries. The interconnections of global labour markets may be considered in the context of direct international transfers of people and workforce resources (globalisation of human migration) as well as in the context of direct connections through the integration of production on an international scale.

Foreign migrations are determined under the influence of various factors, such as: overpopulation, a high rate of population growth, a considerable disproportion in the structure of population according to age, the personal and family status of citizens, the living conditions from the material and cultural point of view, the situation on the labour market, the stage in the development of the economic situation, the socio-political environment in the country, the activity of large multinational corporations imposing the necessity for employee transfers (E. Marek, 1995, no. 3).

Transfers of workforce between regions and countries as well as qualitative and quantitative changes in global labour resources have been increasing in recent years.

The growing income polarisation of societies with an increasingly large proportion of educated people who cannot be absorbed by the global economy of new technologies contributes to the creation of the world with the future of mass migrations of people deprived of opportunities, the poor and the desperate (Z. Bauman, 2000, Ch. 3).

Demographic phenomena exert a huge influence on the migration of population: on the one hand, the societies in the developed countries are getting older and, on the other hand, the rate of growth of population able to work varies significantly in a number of countries. The ageing population in Western countries is the reason for the lack of workforce in many industries. This creates the demand for workforce.

The observed and projected demographic changes will have a global impact. Presuma-

bly, global labour resources will diminish in a short period of time. This will first affect the European countries and Central Asia (the former USSR republics) (ed. D. Karnowska, M. Szatlach, pub. A. Marszałek, 2006, p. 108).

The shrinking supply of labour resources will possibly ease some tensions occurring on the labour market, which are related to the projected decrease in the demand for labour caused by the technological shocks. This situation should not lead to negative results, such as an increase in the rate of unemployment. However, a growing level of idleness in society will constitute a social problem. This phenomenon will contribute to a lesser efficiency of pension plans and retirement programmes (M. Sulmicka, 2003, no. 7).

The modern world economy is mainly a network of transnational corporations. The corporations make the best use of the new environment created by globalisation and, besides, they contribute to the process acceleration. It may be deducted from the results of various analyses that the main functions of transnational corporations include (A. Zorska, 2002, p. 49):

- transferring resources as well as production and trade capacities,
- stimulating the economic growth and efficiency,
- stimulating restructuring,
- stimulating local resources and competition on the market,
- transmitting new methods and behaviour patterns,
- creating equal opportunities,
- integrating the activities of companies and economies.

International mergers and acquisitions are one of the methods employed by transnational corporations to cope with the pressure of the increasing global competition and to secure a competitive advantage on the market. In recent years this process has intensified on an unprecedented scale. The global boom in the area of acquisitions and mergers increases the pressure to create a global market of goods and services as well as international production, including the global labour market. Nevertheless, there have been more and more doubts arising as to the economic sense of real advantages resulting from international strategic alliances. Also, their influence on the development of particular countries and its results on healthy economic competition in the world economy have been questioned (W. Szymański, 2007).

The influence exerted by transnational corporations and their branches is particularly well noticeable on local labour markets. It is exercised mainly through the networks of international production connections, specific systems for placing orders with local companies, systems of contracting and subcontracting, etc. The international demand for labour profoundly determines the size and the structure of the demand for labour on labour markets in particular countries. At present there is a tendency to relocate the production requiring unskilled work force to developing countries, where the supply of work force is high, and its price is relatively low.

It should be emphasized that a large number of big and populous countries (China, India, and the block of ASEAN countries) have joined the mainstream of the world market economy in recent years. The transfer of jobs from Europe and the USA has been intensified. Asian countries have won the competitive advantage over the rest of the world, thus multiplying their benefits from globalisation. In this way the global labour market has been strengthened by the part of resources, which is directly involved in the international exchange of labour resources (in the form of emigration), or, indirectly, through the participation in the production of goods and services to be exported. Trading with new “cheap” producers is increasingly considered as potentially highly destructive to the current employment levels in highly industrialised countries. As a consequence, protectionist sentiments are appearing in some of them.

Globalisation processes on labour markets in particular countries result in a decreased demand for the so-called typical work (full-time permanent work contracts) and lead to an increased number of non-typical jobs, such as part-time jobs, specific contract jobs, temporary jobs, jobs on call, freelance jobs, working from home, or teleworking. Additionally, the work in teams is being reorganised so that they can handle various tasks and work on various projects simultaneously. New flexible forms of employment lead to a decrease in the costs of workforce and in the costs of capital, and also contribute to an increase in the workforce mobility.

Flexitime, flexible salaries and the absence of numerous privileges protecting employees from being made redundant, are the main factors determining the level of labour market flexibility. The degree to which the flexible forms of employment are implemented is a very controversial one. These controversies may be expressed in the following question: how can we reconcile the microeconomic goals (higher efficiency, adjustment to increased competition) with the public interest (eliminating a further increase in social disproportions, eliminating a further increase in the number of people considered “the working poor”) (ed. D. Karnowska, M. Szatlach, pub. A. Marszałek, 2006, p. 118). The loss of social security of employees, which is related to a higher flexibility level of labour markets (abolishing legal guarantees and social entitlements), leads to the economic uncertainty of employees, to frustrations and various social tensions.

Globalisation remains one of the most current and controversial issues. Beside unquestionable benefits related to more active international transfers of goods and services, factors of production and information which may be used in a more productive way, there remains a problem of unjust distribution of globalisation benefits. The growing inequality as to the profit division is particularly striking. This was noticeable especially in the 80s and in the 90s of the 20<sup>th</sup> century, when globalisation was at the stage of very extensive trade liberalisation and capital transfers, and when the fourth technological revolution gathered the greatest momentum.

### **Economy based on knowledge and information confronted with the labour market**

The development of production and information techniques and technologies is the factor generating the globalisation process and significantly influencing the labour market. All technological changes have a bearing on the changes of the structure of the demand for labour, particularly with regard to qualifications. Technological innovations affect particular sectors and branches of economy in various ways. On the one hand, they reduce the number of jobs in the sectors where high qualifications are not required. On the other hand, they contribute to the creation of new jobs in which other, usually higher qualifications are indispensable (GUS, 2006). However, such a “compensation” is neither automatic nor painless. Within a short period of time the new jobs do not compensate for the old ones as far as the required skills or geographical locations are concerned. In places where the discrepancies are large and permanent, we are faced with structural unemployment and the problems of structural adjustments.

Changes in the world economy (civilisation, social, economic and technological ones) are taking place at a various pace in various countries. *In the year 2000 the European Union adopted the Lisbon Strategy, with one of its main stipulations for a radical transformation of the European economy in the direction of economy based on knowledge.* The Lisbon Strategy constitutes the main socio-economic programme of the EU, pointing towards the directions of the development in the areas which play the decisive role in the global market of goods and services. Its most important priority is to transform the EU economy so that by the year 2010 it will have become the most competitive economy worldwide, dynamic, based on knowl-

edge, capable of sustainable growth, creating a larger number of permanent and innovation-related jobs.

Activities within the Strategy are aimed at making better use of the existing economic potential – work, knowledge, capital – through deregulation and the application of market laws, on the one hand, and through an active role in the process of creating competitive advantages, on the other hand (Biała Księga, 2003).

The age of globalisation has already increased and will continue to increase rapidly the demand for knowledge which is becoming the fourth factor of production (apart from land, labour and capital). Knowledge, skills and qualifications of employees are becoming the most important assets of companies whose market competitiveness is dependent not so much, and not only, on physical capital, but on the quantity and quality of human capital. The rapid pace of knowledge changes and the resulting intensity with which innovations are implemented both determine the intensification and the rationalisation of production processes as well as the modernisation of manufactured goods. This innovativeness is the basic tool used to raise the competitiveness of companies, of regions, and of whole economies.

In the beginning of the 21<sup>st</sup> century no one doubts the fact that knowledge and related to it information have become the main factors of growth and economic development, thus creating a completely different economic reality. Owing to the progress in many areas of science, new breakthrough technologies have been created, which have opened the way to the creation of new and significant industries, such as computers, semiconductors, lasers. These industries are based on knowledge and on the power of the human brain. It is knowledge that has become the new foundation of prosperity. With the increased significance of the so-called non-material factors of development, scientific knowledge has become the most important factor determining economic development (L.C. Thurow, 2006).

The transition from the industrial society to the society of knowledge is not left unnoticed on the labour market. In the long period of time, the structure of employment is changing to the advantage of highly-qualified employees. This is true about all economy sectors. Obviously, it does not mean that the demand for the unqualified workforce will completely disappear; the demand for employees without qualifications will continue to decrease.

### **The future of work in a modern society**

The professional literature provides many possible scenarios regarding the influence that the society based on knowledge (information society) will exert on the level of employment and on the essence of work. Numerous statements sound no less than catastrophic whereas others address this issue in a clearly positive manner.

The most catastrophic vision of the influence of processes taking place on the labour markets in today's world was postulated by J. Rifkin, who claims that progressing globalisation processes, and in particular the information and technological revolution, will lead to a dramatic decrease in the demand for labour. In his thesis he claims that the first industrial revolution which was based on scientific and technological revolution brought about a change of the methods of production and a gradual replacement of human work by machines. However, he is of the opinion that new information and automation technologies at present will substitute for the human mind. In the age of information technology intelligent machines will eliminate human work in the spheres of production and services. According to Rifkin, only 5 per cent of workforce will be needed to carry out all the production work in fifty years (J. Rifkin, 2001).

There are also numerous economists who do not see threats resulting from ongoing globalisation processes. According to them, globalisation is very tightly connected with the technical and technological development, and as such it is turning into the motive force be-

hind all changes beneficial to both individuals and whole communities. It creates additional opportunities for earning high income from work, increases the number of education options, raises the living standards by reducing the amount of time spent at work and increasing the amount of leisure time, contributes to the decrease in the environmental pollution levels, improves the health conditions (R. B. Reich, pub. A. Marszałek, 1996). According to A. L. Porter, the emergence of the information society changes in a fundamental way the essence of work and the attitude to work. In his paper he considers the question of the demand for labour in the information society and comes to a conclusion that the effects on the employment levels are cumulated over a period of time. A quarter of a century may well be the most important time horizon. The information society will possibly accelerate the pace of technological changes and intensify their impact on the employment levels as new production systems will emerge. He emphasizes the fact that technological changes lower production costs, and as a result lower the price of a particular product, thus leading to an increased demand, and eventually to an increase in the demand for labour. Moreover, changes in the techniques of manufacturing may cause a creation and development of completely new products, and in this way help to create new jobs. He claims, optimistically, that as far as the employment level is concerned, the decrease in the demand for labour resulting from the emergence of new techniques of manufacturing is always more than counterbalanced by the positive impact of a general increase in production (A.L. Porter, ed. L.W. Zacher, 1997).

One may draw various conclusions from the analysis of the information society, depending on the choice of the optimistic or the pessimistic scenario of its development. It is reasonable to assume that development opportunities outnumber threats. The important thing, however, is to be able to seize the opportunities and to be able to protect oneself from the lurking dangers in due time.

### **Changes in the structure of employment according to economic sectors**

The sector of services is gaining importance in modern economies. In the 80s and 90s of the 20<sup>th</sup> century the OECD countries experienced a continual emergence of new types of services and their transformation into goods. The services sector became a sort of centre of ongoing changes and it determined the essence of structural changes taking place in modern economies. Innovative activities and new technologies started to play an important role in these processes of changes. It is mainly information and communication technologies that revolutionised methods of production and the distribution of traditional services as well as contributed to the emergence of thoroughly new ones (G. Węgrzyn, ed. K. Piecha and E Skrzypek, 2007).

The data regarding the professional activity of people in 52 countries in the years between 1990 and 2001 point to particular trends in the changes of the employment structure (M. Geise, ed. D. Karnowska, M. Szatlach, p.109). The proportion of the employed in the services sector compared to the total number of the employed increased in all the countries. The pace of changes was faster in the countries where the stage of development was far behind the group of the richest countries in the world. Moreover, it is typical of all the most developed countries that the proportion of the employed in the services sector is high in comparison to the figure representing all the employed. Services in the European Union are responsible for 68 per cent of the GDP, which roughly corresponds to 70 per cent of all the employed. Another trend regarding the changes in the structure of employment according to economic sectors is a decrease in the number of the employed in the industrial sector (with the exception of China) and in agriculture in comparison to the number of all the employed. Table 1 represents the changes in the employment structure according to sectors in the EU countries (15), the USA, and in Poland between 1990 and 2004.

Table 1. The structure of employment according to economic sectors in selected countries (expressed in %)

Country	Years	Sectors		
		Agriculture	Industry and Construction	Services
Poland	1994	23.0	32.0	45.0
	2006	15.8	30.0	54.2
The UE (15)	1991	6.0	31.3	62.7
	2004	3.9	27.4	68.8
Switzerland	1995	4.4	28.6	66.9
	2006	3.8	23.0	73.2
The USA	2000	2.6	23.2	74.2
	2006	1.5	20.8	77.7

Source: Memento Statistique de la Suisse 2006, Office Fédéral de la statistique, Neuchâtel 2006, and Aktywność ekonomiczna ludności w Polsce w IV kw. 2002, GUS, Warszawa 2003, Rocznik Statystyczny GUS, Warszawa 2005, Rocznik Statystyczny GUS, Warszawa 2007, page 777.

In the economy based on knowledge the sector of services based on advanced knowledge gains particular importance (G. Węgrzyn, no. 55, pp. 184 -196). These services include:

- transport by ship and plane,
- mail and telecommunications,
- financial services,
- real estate and corporation services,
- education,
- insurance as well as pension and retirement schemes,
- recreation, culture and sports.

As far as the European Union (25) is concerned, in the year 2004 the number of the employed in the sector of services based on advanced knowledge amounted to 33 per cent of all the employed. The highest proportion of the employed in the sector of such services is present in the following countries: Sweden (47%), Denmark (42.3%), Great Britain (42.1%), Holland (41%), Finland (40.3%). The lowest proportion is present in Poland (22.2%) (G. Węgrzyn, no. 55, pp. 184 -196).

The above tendencies have been confirmed in empirical studies conducted by A. Balcerzak and E. Rogalska. They constructed a synthetic measure of development and employed it to create a typology of EU countries with regard to the level of the development of the economy based on knowledge (A. Balcerzak, E. Rogalska, ed. G. Wrzeszcz-Kamińska, 2007, pp. 100-102). In order to achieve this, they applied the method of the arithmetic mean and standard divergence. They divided the analysed countries into four groups:

- countries with the highest degree of advancement of the economy based on knowledge,
- a group of countries with a high degree of advancement of the economy based on knowledge,
- a group of countries with an average degree of advancement of the economy based on knowledge,
- countries with a low degree of advancement of the economy based on knowledge.

The results of the conducted study are represented in Table 2.

Table 2. Taxonomic measure of the development of the economy based on knowledge in the European Union countries, obtained through the application of the zero unitarisation method.

Place	Country	Measure
Very high degree of development		
1	Sweden	0.700917
2	Finland	0.570445
3	Luxembourg	0.567931
4	Denmark	0.559225
High degree of development		
5	Holland	0.533539
6	Estonia	0.525314
7	Great Britain	0.520473
8	Slovenia	0.517362
9	Germany	0.49681
10	Austria	0.45453
11	Ireland	0.42491
Average degree of development		
12	France	0.394992
13	Italy	0.392874
14	Cyprus	0.386302
15	Portugal	0.384927
16	Spain	0.377079
17	Belgium	0.371922
18	Hungary	0.358878
19	The Check Republic	0.317041
Low degree of development		
20	Lithuania	0.290694
21	Greece	0.289145
22	Latvia	0.253396
23	Poland	0.247448
24	Slovakia	0.221645

Source: A. Balcerzak, E. Rogalska, *Gospodarka oparta na wiedzy*, page 101

In this ranking list the Scandinavian countries were included into the group of countries with the highest degree of development of the economy based on knowledge. In the same study Poland was included into the group of countries with a low degree of economic development; it was ranked last but one, and Slovakia closed the list.

### **Professions of the future**

As it has already been emphasized, the emergence of societies based on knowledge exerts a multidirectional influence on the functioning of labour markets. One of the most important areas of changes is the direction in which professions will change. On the one hand, new professions are surfacing and the demand for particular professions is rising, whereas the demand for other ones is falling. On the other hand, the nature of duties performed by par-



ticular professions is being transformed. Since professional duties are performed in another way, corresponding new qualifications are required.

Electronics, information technology and telecommunications have the decisive impact on economic and social development throughout the world. Consequently, numerous new jobs are created suited for people representing new professions in the areas of designing, manufacturing, applying or selling electronic equipment that may be used in information technology, telecommunications, or metrology (Z. Jacukowicz, ed. S. Borkowska, 2004, p. 93). It should also be emphasized that numerous professions which will come into being in the future cannot be recognised at the present time. This results from the fact that knowledge, new technologies and human needs are in the dynamic process of permanent development. On the other hand, the process of eliminating some of the professions existing today is bound to intensify. Information society will increasingly require that people are able to work in more than one profession. This will allow easier employment on the changeable labour market.

The development of information technology is closely followed by the increase in the demand for employees with the following features (P. Szeliga, GUS, PTE, 2007, p. 224): professional, independent, capable of making decisions and of continual learning new skills, able to share knowledge and to feel trends, open to changes, flexible, and showing understanding of the cyclic nature of phenomena and processes.

Manpower employment agency has conducted interesting research on the most desired professions at the present time. They have compiled a list of ten most sought after professions in 32 countries (including Poland). The research clearly demonstrates that these countries suffer most from the deficit of qualified blue-collar workers, such as electricians, masons, plumbers and welders. The following positions on the ranking list were occupied by drivers, technicians, engineers, customer service representatives, hotel and restaurant staff, production personnel and sales representatives. As far as Poland is concerned, the main reasons for shortages of these desired professions are the system of education inadequately suited to meet the market demand and the employee migration abroad. Employers in Great Britain, Ireland and Holland signal the fewest recruitment problems with regard to these abovementioned desired professions (between 12% and 15%). The vacancies in these countries were filled, among others, by emigrants from Poland. Interestingly, unlike in other countries, in Poland IT specialists and high management personnel have not been listed among the ten most sought after professions (Parkiet of 23.04.2008, p. 15).

It must be taken into consideration that the progress of civilisation coexists with other important processes, such as the progressing process of ageing of societies or the increasing needs of the wealthier groups of society. Taking care of the elderly and the sick may be the right professional career opportunity for many people. The demand for the services offered by caretakers, nurses, physiotherapists and doctors of various specialisations is increasing. Such a situation has long been observable in countries like the USA, Great Britain, Germany or Italy.

One must not forget that the market needs are changing continuously and the list of professions considered future-orientated can soon be outdated.

## **Conclusion**

Globalisation of the markets of goods and services, financial markets, economic activity, industrial production, technology and knowledge exerts a considerable influence on local labour markets.

The most important implications of globalisation for labour markets may be phrased in the following way:

- the liberalisation of imports and capital transfers opens labour markets in particular countries to the growing indirect globalisation influences through imports and new technologies used by transnational corporations;
- owing to their competitive advantage, foreign companies easily force out the local production of a particular country, which results in bankruptcies of companies unable to face globalisation challenges. Consequently, this leads to an increase in unemployment, especially in less developed regions of the world;
- an increase in a particular country's international trade activity contributes to tightening the international connections between labour markets;
- intensified transfers of capital, goods and services are accompanied by the increased emigration of workforce;
- the technological progress in the areas of information and communications decreases the demand for workforce and eliminates human work in the sectors of production and services;
- the progressing globalisation process increases the income gaps within societies and deepens the pauperisation;
- as a result of globalisation processes, there is a decrease in the demand for the so-called typical work (full time, for a defined period of time) and an increase in the number of non-typical jobs;
- information society creates new professions, and, on the other hand, depreciates and gets rid of the traditional ones. The developing information and audiovisual sector absorbs new employees whose professions and skills must be adapted to the changing needs;
- a new distribution of labour between sectors of economy is typical of information societies. Information societies develop the services sector, including information services, on an unprecedented scale. The convergence of computer, telecommunications and mass media technologies as well as the development of information networks, including the internet, generate more and more new areas of services offered to a growing number of users.

The abovementioned implications for labour markets, which are a result of globalisation processes, create new responsibilities for governments in particular countries. The increasing saturation of economy with capital, and its higher productivity resulting from the technological development, unavoidably lead to a decrease in the demand for labour. Taking into account the historical perspective, the replacement of human work by material and nonmaterial factors of production is inevitable. All developed countries are aware of the fact and therefore, in their programmes and strategies aimed to counteract unemployment, they take into consideration the transformations of civilisation taking place at the present time.

The new civilisation will not survive unless it is capable of providing its citizens with work, thus enabling them to consciously participate in its creation. The international community of today is facing a huge challenge. As far as employment is concerned, the current situation results in huge waste of labour resources and immensity of human suffering. Massive unemployment and poverty in numerous countries are potentially threatening the further development of civilisation.

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