Evaluating Labour Market Flexibility Using the TOPSIS Method

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Submitted by: Anna Galik

Abstract

TOPSIS is employed by comparing spatial (i.e., different countries) and temporal (i.e., long-time horizon) terms. Sustainable industrial relations processes are considered in shaping the flexibility of the labour market in 15 European Union Member States from 2009 to 2018. Countries are grouped into classes to provide a basis for benchmarking results against social and employment policies implemented at the national level.

1. Introduction

One of the needs of a modern knowledge-based economy is a flexible labour market. Dynamic technological progress and information and communication technology (ICT) development can affect the labour market and contribute to the reduction of inequalities in different labour-oriented activities (e.g., wages, income, working conditions, job security, career prospects and other work-related circumstances). The challenge of balancing the flexibility of employers with the protection of worker interest is a core element of labour market effectiveness. In the context of the current pandemic and its effects on the workforce, the concern of labour market flexibility is of particular importance. The use of tools to allow for an ex-post benchmarking of flexibility across countries and, at some point, the examination of the effectiveness of public policies to aid in best practices across markets will be crucial in building sustainable industrial relations in a post-COVID-19 era. The importance of flexibility for a smooth functioning labour market is emphasised in several studies. Documents from the European Union (EU), International Labour Organization (ILO) and strategies outlined by individual countries indicate the flexibility of labour markets as priority aspects of social and economic development. Numerous international organisations are making efforts to study how labour markets, in particular businesses, adapt to reforms and external factors (i.e., the current pandemic) to evaluate the importance of the labour market flexibility process \[1\][2]. Labour market flexibility is an important aspect of the economic pillar when considering the United Nations Sustainable Development Goals (SDGs) 2030 agenda, i.e., with particular emphasis on SDG 5, 8, 10 and 17 \[3\][4][5][6][7]. Flexibility can maximize stakeholder benefits and aid in creating an overall better functioning labour market. Importantly, flexibility measures that centre themselves on increasing employment opportunities for the disadvantaged (e.g., women, elderly and people with disabilities) can create a significant impact on the labour market and, in turn, limit the occurrence of economic inequality \[5\][6][7]. Respectively, local development and interregional cooperation must be mutually compliant; however, the lack of tools, at present, significantly limits the prospect of designing effective development activities \[8\][9]. The tool contributes not only to the general development of economic science, but specifically to the betterment of planned activities in the field of functional domestic labour markets. To better assess design effectiveness, measuring the level of labour market flexibility is explored. This exercise, in theory, should support enhanced sustainable development of the workforce by building a more harmonious labour-market-flexibility-centric society.

In general, labour market flexibility may be defined as the ability of the labour market to adapt to changing economic conditions. The importance of labour market flexibility for economic development was recognized in various economic theories, starting from classical and neoclassical (e.g., the concepts of Pigou, Haberler and Samuelson), Keynesian, through the theory of the natural rate of unemployment proposed by Friedman \[10\] and non-accelerating inflation rate of unemployment, i.e., first introduced as non-inflationary rate of unemployment by Modigliani and Papademos \[11\]. Labour market flexibility has both macroeconomic and microeconomic dimensions. The common feature of both dimensions is flexibility is defined through deregulation. Deregulation of the labour market consists in making it more flexible as a result of limiting state intervention and increasing the freedom of entrepreneurs in employee
The concept of labour market flexibility refers primarily to three main components: labour supply, labour demand and labour price. The flexibility of labour demand is understood as employment flexibility, labour supply flexibility as labour market mobility and labour price flexibility as wage flexibility. Institutional factors understood as industrial relations processes determine the flexibility of the labour market. Moreover, there is also the idea of the offensive and defensive approach (see Lagos [12]). The traditional defensive approach is based on the view that labour markets are excessively regulated so that it postulates deregulation while the offensive (i.e., active) approach stresses the need to provide the workforce with training and new skills in order to facilitate their adaptability to changes.

In 2020, under the conditions of COVID-19, labour market flexibility research has found a special, new dimensional trait. The ILO has released preliminary assessments on the first effects of COVID-19 on labour markets, including a growth in unemployment between 5.3 million jobs in a low scenario to 24.7 million in a high scenario, as well as a decline in labour income and increase in extreme and moderate working poverty [13]. During this period (i.e., an imminent global economic crisis and uncertainty), greater labour market flexibility could have encouraged more inclusive labour force participation provided that structural changes including work security measures were carried out in parallel. As in their report, published in 2020, the European Foundation for the Improvement of Living and Working Conditions has identified challenges and policy approaches to find the right balance between flexibility and security in the labour market [14]. Hence, the ‘flexicurity’ (i.e., flexibility + security) concept is closely reflected. It is a complex and multifaceted phenomenon and is yet to be soundly and well-developed as an indicator-monitoring-based framework [15]. It seems to be more political, at the moment, as noted in a number of EU policy documents (e.g., in the Europe 2020 programme of the EU or the EU Agenda in 2019–2024) rather than a socioeconomic real model (i.e., “the EU should ensure that the labour market regulatory framework provides the right balance of flexibility and security for companies and workers, facilitates job creation and does not stifle innovation” [16]). Furthermore, it should be mentioned that the EU’s level flexicurity concept has been changing every year with the only countries that show positive achievements being Denmark and the Netherlands. The Danish concept of flexicurity is based on the “golden triangle”, which consists of three elements: flexible labour market, active state policy and social security [17,18]. The Dutch flexicurity model has been designed to serve the hybrid goal of, on the one hand, increasing the security of workers employed via atypical contracts (i.e., deviating from the standard open-ended employment relationship), while, on the other hand, preserving flexibility in the labour market [19]. The experience of these countries will be particularly important in terms of seeking optimal solutions in the post-pandemic period in terms of implementing a flexible labour market to ensure work security for the mutual benefit of employers and employees. To find the right balance, it is essential to have adequate and reliable historical data. Therefore, the question of measuring flexibility is important not only from a scientific point of view but also from a practical point of view.

To enhance labour market flexibility, via measurable means, the proper tools are required. The methods of measuring such phenomenon have been conducted for several decades [20]. They vary in character, due to their development, by including adopted components and scope-specific analyses (e.g., monomial measures that consider only one variable versus others that create a set of quantitative and qualitative factors). The methods of measuring labour market flexibility, despite the vastness of the research, are still insufficient. One concern is that their limitations do not allow for extended time-spatial research. In a European context, this is necessary to diagnose the correct performance of European labour markets as well as conduct a common pro-employability policy for the EU. Moreover, it is difficult to identify impact-relating factors that stimulate flexibility. Examination of the correlation between ICT, social and economic changes, as well as individual components via a synthetic labour market measure, can allow for the assessment of stimulant and destimulant valuation [21,22]. Furthermore, the lack of precise tools that can comparatively analyse such phenomena significantly limits the possibility of forecasting the development of national and transnational labour markets—making this research vital to workforce planners and policymakers.

The limitations of existing methods have led researchers to search for new approaches to assess the level
of labour market flexibility. In this respect, synthetic measures seem to be one of the most comprehensive—since they are some of the most important factors affecting flexibility. The extent of the literature on this topic is poor, and there are no widespread best practices. The methods that are most used have time and space constraints on the data. Scholars often use their own indicators, which does not ensure the comparability of the results as well as limits that not only kerb cognitive value but, indirectly, restrict the development of the field and hamper in reaching the SDG targets. As such, this gap makes it necessary to develop new synthetic measures for labour market flexibility by improving the validation and dissemination of both the procedure and research results of the market labour flexibility process.

2. Development and Findings

Building a sustainability-based, synthetic measure of labour market flexibility, the use of the TOPSIS approach has made it possible to compare the EU-15 countries in a given period. The results indicate that in the analysed countries there are different levels of labour market flexibility. Grouping countries into classes provides a convenient basis for benchmarking the results against policies at the national level. The research may be a good basis to further engage the relationship and the understanding of comparing workforce-related phenomenon. The lack of precision tools to forecast the development of national and transnational labour markets—particularly during the COVID-19 era—can elevate and aid workforce planners and policymakers alike to rethink industrial relations. There is already a diverse opinion in the scientific and media world about the consequences of the pandemic. There is also a lack of indicators to help diagnose and forecast possible solutions for economic and social policies. TOPSIS is an appropriate approach for measuring labour market flexibility on an international scale that offers the possibility to examine the impact of particular elements of social and employment policies of a country in terms of sustainable development and socioeconomic growth of regions and countries. This can empower respective entities (e.g., government agencies) to forecast sustainability-focused industrial relations and changes as a result of future unforeseen risks with similar effects via isolation and the freezing of economies [23][24]. In the age of globalisation, this seems to be an important analytical factor [25][26].

Future research could conduct detailed studies of the evaluation of labour market flexibility in individual EU countries with a higher level of resolution by examining correlative domestic labour market values. On this basis, it would be possible to determine at the national level which determinants have the greatest impact on shaping the flexibility of the labour market and the direction of their influence. A key question being, what can help to find the best solutions tailored to the current problems and needs of the labour market itself? This would make it possible to determine which of the components of the synthetic labour market flexibility index proposed by Galik [27] would be most important in shaping flexibility and in which of them a positive correlation could be found. Such studies point to those elements of the functioning of the labour market which have the greatest potential to make domestic labour markets more flexible [19][28][29]. From an implementation point of view, it may constitute the basis for building a sustainable social and economic development strategy based on flexible labour markets. It may also indicate the most optimal tools for returning to the state of equilibrium in moments of economic and labour market fluctuations. A noteworthy limitation, however, is that the TOPSIS approach is not widely used in labour market flexibility research. Nonetheless, studies available so far [27][30][31] confirm the reliability of the method. Moreover, the research gives convergent results and indicates wide possibilities of dissemination of the approach among labour market researchers. In all, the availability of data for time-space analysis on the components of the synthetic labour market flexibility meter is still limited—a problem for all the available indicators. In TOPSIS, this problem has been significantly reduced; however, the lack of data still significantly limits the possibility of extending the temporal and spatial studies.

Furthermore, the limitations in the availability of statistical data necessary for spatial and temporal analysis are an important barrier to research in the field of labour market flexibility. The smaller number of variables considered may suggest some difficulties in implementing the conclusions drawn up on the basis of the study. Therefore, when a greater number of reliable data sources, tailored to the needs of spatial-temporal analysis, are available, re-verifying the model output should allow for higher resolution
results as well as for better statistical examination.

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