



Publisher

<http://jssidoi.org/esc/home>

CHANGES IN LABOUR MARKET INDICATORS UNDER THE INFLUENCE OF INTERGENERATIONAL DISPARITIES IN VALUE ORIENTATION*

Richard Rigó ¹, Martin Šrámka ², Adriana Grenčíková ³, Valentinas Navickas ⁴

^{1,2,3} Alexander Dubček University in Trenčín, Trenčín, Slovak Republic

⁴ Lithuania Business College, Klaipėda, Lithuania

E-mails: ¹ richard.rigo@tnuni.sk; ¹ martin.sramka@tnuni.sk; ³ adriana.grencikova@tnuni.sk,
⁴ valentinas.navickas@ltvk.lt

Received 18 January 2024; accepted 10 April 2025; published 30 June 2025

Abstract. The labour market simultaneously encompasses multiple generations—Baby Boomers, Generation X, Millennials (Generation Y), and Generation Z. Each of these generations is characterised by distinct values, attitudes, and expectations, which, in combination with rapid technological progress and changing social conditions, accentuate their differences. The diverse preferences of each generation may have a significant impact on the labour market and its indicators. This study aims to examine the effect of generational shifts on selected labour market indicators, such as employment, labour productivity, long-term unemployment, and mobility within the conditions of the V4 countries. The primary analytical method applied is the Seemingly Unrelated Regression (SUR) model, with the analysis based on available statistical data from Eurostat. SUR models allow for a more detailed examination of the specific characteristics of individual generations in the labour market and their influence on the aforementioned indicators. The study tests a set of four hypotheses, each addressing statistically significant differences between generations in the context of: (1) employment by sector, (2) labour productivity by sector, (3) long-term unemployment, and (4) labour mobility. The interpreted results present a summary of findings across all V4 countries (Czech Republic, Poland, Slovakia, and Hungary) and are subsequently compared with findings from other regions, particularly Western Europe and the United States. The main findings indicate that the generations differ statistically significantly in relation to the selected labour market indicators. Since the V4 region has remained relatively underexplored in this research domain, the acquired findings expand existing theories on intergenerational disparities and their impact on the labour market.

Keywords: Generational shifts; labor market; SUR analysis; V4

Reference to this paper should be made as follows: Rigó, R., Šrámka, M., Grenčíková, A., Navickas, V. 2025. Changes in Labour Market Indicators Under the Influence of Intergenerational Disparities in Value Orientation, *Entrepreneurship and Sustainability Issues*, 12(4), 215-231. <http://doi.org/10.9770/c7894293492>

JEL Classifications: J11, J21, J24

1. Introduction

Intergenerational disparities in value orientation represent a process that influences not only societal values and preferences but also the structure and functioning of the labour market (Kalleberg, 2020). Each generation enters the workforce with distinct experiences, education, work habits, and technological literacy, creating both new challenges and opportunities for employment and economic productivity (Visser et al., 2018). While older

* This work was supported under the research project No. APVV-VV-MVP-24-0299 - New trends in human resource management in the context of global challenges of the 21st century. This research work was created within the project "Changes in the value orientation of employees under the influence of generational change", code of the project D14_2024, based on the financial support from the Internal Grant Scheme of the Alexander Dubček University of Trenčín (Call for proposals: Early Stage Grants).

generations may struggle with adapting to digitalisation and automation, younger generations bring innovative approaches, flexibility, and greater mobility within the labour market (Abou Assi & McGinnis Johnson, 2021). A review of the literature identifies three key factors contributing to intergenerational disparities in relation to the labour market: (1) Demographic differences, leading to an ageing workforce and labour shortages (Jiang et al., 2024; Coliander, 2023; Giannini et al., 2022; Tan et al., 2022); (2) Changes in skills, which have become more pronounced due to technological advancements (Mahmoud, 2024; Abbasi et al., 2024; Calvo-Porrall & Pesqueira-Sanchez, 2020); (3) Shifts in value orientation, referring to changes in attitudes toward the labour market, employers, and workforce preferences (Czerwińska-Lubszczyk & Jankowiak, 2025; Kupczyk et al., 2024; Lee et al., 2023).

This study focuses on identifying the impact of these intergenerational disparities in relation to the labour market, particularly on selected indicators such as sectoral employment, sectoral productivity, labour mobility, and long-term unemployment. The geographical scope of the study is limited to the V4 countries. This region remains relatively underexplored in terms of labour market research, despite significant disparities between generational cohorts due to regional factors. These claims are supported by Hu and Hang (2023), who examined generational differences and found that studying such disparities at the geographic regional level is crucial, as they vary significantly across regions. Within the V4 countries, Yen et al. (2023) argue that social evolution in Eastern Europe, influenced by cultural, economic, and social factors, has significant implications for understanding the decision-making processes of different generations. Their research confirms that regional differences persist and continue to shape the behaviour of generational cohorts based on region-specific factors.

Given this context, an in-depth examination of the V4 region is considered highly valuable for expanding knowledge on generational disparities and their effects on the labour market. Among the total number of indexed studies published in the last ten years ($n = 117$), only four studies on this topic from Eastern European countries are currently indexed in Web of Science, all of which originate from the Czech Republic (Kyzlinkova & Stastna, 2018; Gurrutxaga, 2020; Egerova et al., 2021; Bicakova et al., 2023). These studies addressed unemployment among Generations Y and Z, student employment, demographic changes, and fatherhood in the context of declining birth rates.

An analysis of these studies reveals a lack of large-scale empirical research focusing on generational differences and their impact on the labour market in this region. Most existing studies originate from Western Europe and the USA, making their findings difficult to apply directly to Eastern Europe. This discrepancy is highlighted by Mahmoud et al. (2021) and Fuchs-Schündeln and Schündeln (2020), who argue that generational cohorts in Western countries and Eastern Europe exhibit significant differences rooted in historical and political factors, particularly the legacy of socialism. The communist ideology has contributed to disparities between generational cohorts in Eastern Europe and other regions and within generations raised during the Soviet era versus those raised after its collapse (Sagituly & Guo, 2023). This conclusion is further supported by Hu and Hang (2023).

Although these studies highlight specific aspects of generational differences in employment, a more comprehensive analysis of their impact on the labour market in the V4 countries remains absent. Poór et al. (2025) emphasise that one of the key challenges in the region is the ageing workforce and the migration of younger generations to economically stronger Western European countries, leading to a shortage of skilled labour in specific sectors. Similar trends were identified by Nešpor and Večerník (2023), who analysed intergenerational mobility and concluded that while the economies of the V4 countries are gradually converging with Western Europe, significant differences in working conditions and career prospects persist.

The shortage of skilled workers in certain sectors may lead to further structural problems in the labour market, especially if effective measures are not implemented to support intergenerational cooperation and adaptation to new technological challenges (Stojanova & Raguž, 2024). In this context, it is crucial to develop policy strategies that consider the differences between age groups and ensure effective integration between older workers' experience and younger generations' technological competencies.

Moreover, Woźniak-Jęchorek and Pilc (2024) emphasise that political and institutional factors play a significant role in shaping the labour market, with V4 countries facing challenges related to labour market flexibility and

productivity across different sectors. The findings of these studies provide essential insights for developing effective employment policies that address the specific characteristics of generational cohorts and support long-term labour market stability in the region.

2. Theoretical background

The value orientation of generations in the labour market is changing, with each generation possessing specific attitudes, skills, and values that influence employer selection, labour market dynamics, and its indicators (Lissitsa & Laor, 2021). As generational cohorts in the labour market evolve, meaning that older generations leave and are replaced by younger ones, changes occur that employers and states must be able to adapt to. Since Generation Y has become the most numerous in the labour market, followed by Generation Z, these generations are considered the most significant. Therefore, researchers and employers have shown increased interest in these generations.

Intergenerational perception in the workplace plays a vital role in the collaboration of different age groups. While this diversity can benefit creativity and innovation, it also increases the risk of conflicts, particularly regarding work methods, communication, and management approaches. Employers strive to understand these differences and create an inclusive work environment where each generation can contribute to collective success (Kuyken & Costanza, 2024; Hans et al., 2023).

According to Elstad et al. (2021), value differences between generations are caused by global transformational processes, including technological advancement, economic cycles, and social movements. Additionally, Šestáková (2023) identified four key factors shaping generational disparities: (1) life cycle effects – values change over a lifetime due to experiences; (2) period effects – major historical events (wars, crises, technological innovations) shape generational attitudes; (3) technological impact – digitalisation and automation influence work habits across generations; (4) cohort effects – belonging to a particular generational group affects an individual's value system.

Post-war prosperity, the Cold War, and increasing political engagement shaped the Baby Boomer generation. This generation is known for its strong work ethic and preference for career advancement over financial rewards, holding higher status values towards the company compared to younger generations (Kinger & Kumar, 2023; McCrindle, 2018). In the workplace, they often advocate for hierarchical structures and formal communication, which can lead to generational conflicts in the modern, flexible economy.

Generation X, also called the "MTV Generation," grew up during the oil crises, digitalisation, and rising divorce rates. It is characterised by a sceptical approach to authority, individualism, and an emphasis on work-life balance (Heys, 2024). This generation began to recognise the importance of flexibility and independence in the workplace.

Generation Y (Millennials) was influenced by globalisation, the rise of the internet, and European Union integration. This generation is technologically proficient, focused on self-development, and prefers transparent communication (Jacobsen et al., 2023). In the workplace, they are characterised by teamwork, multitasking, and high expectations regarding job benefits.

As Generation Z enters the labour market, a significant portion of recent research focuses on studying generational cohorts. Generation Z grew up in the digital age and during the climate crisis. In the workplace, they emphasise rapid career growth, digital skills, and sustainability values (Lissitsa et al., 2022). This generation also prefers hybrid work models and flexibility, perceiving traditional hierarchical structures as outdated.

According to Dania et al. (2023) and Egerová (2021), Generation Z is the most educated but the least experienced, as many of its members choose higher education. A key difference from previous generations is their low loyalty to employers—if dissatisfied, they are willing to change jobs quickly. Their job mobility is

also supported by higher language proficiency and broader international employment opportunities (Dania et al., 2023).

Based on these characteristics, each generation has different expectations from the labour market, which can influence mobility, productivity, and long-term employment. Overall, intergenerational differences in values and work preferences significantly impact labour market indicators. While older generations (Silent Generation, Boomers) prefer stability and hierarchical management, younger generations (Y, Z) emphasise flexibility, self-development, and meaningful work (Eyouun et al., 2020).

In the interconnectedness of these generational characteristics and current global changes, the modern labour market is undergoing fundamental transformations due to technological progress, affecting not only the demand for labour but also inequalities between sectors and regions. According to Manning & Petrongola (2024), employment concentration in traditional industrial sectors is declining, leading to changes in wage policies and demand for skills. Companies are forced to seek labour outside the local area or beyond their original sectors, with increasing emphasis on transferable skills (Giupponi & Machin, 2024). One of the most significant variables in this process is digital skills, which are a key factor in employability and socio-economic development. Bejaković & Mrnjavac (2020) emphasise that due to rapid technological development, governments and employers must develop strategies to promote digital inclusion, ensuring a new generation of IT specialists and the overall adaptation of the workforce to technological changes.

In the context of generational differences, it is important to note that younger generations (Y and Z) generally have a higher level of digital competencies, whereas older generations (Boomers, X) often have lower technological literacy, which can deepen disparities in employment opportunities. This trend may lead to the necessity of lifelong learning and retraining of older workers to maintain their competitiveness in the labour market (Giupponi & Machin, 2024).

From the perspective of direct intergenerational changes in value orientation related to the labour market, studies most often focus on several key trends: (1) Generations Y and Z are more frequently employed in the technology and creative industries, whereas older generations dominate in traditional sectors such as manufacturing, agriculture, administration, and healthcare (Klopota et al., 2020); (2) Differences in job mobility – younger generations are more mobile and change jobs more frequently, while older generations remain loyal to a single employer. This occurs mainly due to established job security but also as a result of globalisation and the opportunities it brings (Yinhui et al., 2020); (3) Long-term unemployment – older generations face greater difficulties in finding new employment after a job loss, whereas younger generations have lower long-term unemployment rates due to broader digital skills (Balytska et al., 2023; Vasilescu et al., 2020).

In addition to the aforementioned changes and differences between generations, which lead to labour market transformations, demographic indicators among generational cohorts are also evolving. This makes understanding intergenerational disparities in the labour market even more crucial. Demographic changes influence the labour market in terms of labour supply and overall macroeconomic development. Gagnon et al. (2021) analysed the impact of population ageing and generational changes on GDP. They concluded that demographic factors directly impact economic growth, interest rates, and workforce composition. Their models indicate that generational shifts cause fluctuations in the economy, with the primary factor being the decline in the labour force due to the ageing of Baby Boomers and declining birth rates. A significant element is the change in consumer behaviour – while older generations prioritise stability and savings, younger generations invest more in technology, education, and experiences (Yang et al., 2023). According to Sum et al. (2020), demographic differences are also reflected in varying demands for jobs across different sectors.

Rentería et al. (2024) state that demographic changes represent one of the greatest challenges modern societies will face in the coming decades. Changes in the population's age composition pose a threat to the socio-economic structures of social and democratic states. According to the European Commission report (2024), monitoring demographic changes is becoming increasingly important, as shifts in population composition significantly affect the labour market and the economic development of the European Union.

Based on the aforementioned literature analysis, generational shifts and their impact on the labour market are based on three main factors – differences in skills, values, and demographic structures. Changes in the labour market due to generational transitions thus constitute a broad and complex issue. In the context of these demographic changes, it is even more essential to understand generational differences at a regional level, which can yield significant insights for labour market adaptation in the V4 countries.

Integrating generations in the workplace is challenging, particularly for human resource management. Maan and Srivastava (2022), and Smeak (2020) emphasise that understanding employees' needs and preferences is key to ensuring their satisfaction, productivity, and stability in the workplace. Identifying these differences enables employers to respond effectively to generational disparities and contribute to the long-term sustainability of the labour market by securing the necessary workforce.

4. Research objective and methodology

Intergenerational changes in value orientation and their impact on the labour market represent a complex research area that requires a regional examination. Given that the issue of generational cohorts in connection with the labour market in the V4 region has not been sufficiently explored, this study aims to examine the impact of generational exchange on selected labour market indicators such as employment, labour productivity, long-term unemployment, and mobility in the conditions of V4 countries.

Several hypotheses are set to achieve this main objective:

H1: There are statistically significant differences between generations in terms of employment by sectors in the labour market.

H2: There are statistically significant differences between generations in terms of productivity by sectors in the labour market.

H3: There are statistically significant differences between generations in terms of long-term unemployment in the labour market.

H4: There are statistically significant differences between generations in terms of labour mobility in the labour market.

The SUR analysis (Seemingly Unrelated Regressions) method will be used to clarify the stated objective and the hypotheses set for it. This method represents an econometric analysis of multiple regression equations simultaneously while considering the mutual interactions of variables. A similar method in examining demographic or generational changes was used in the research of Temsumrit (2023), who applied it to analyse the impact of older individuals (aged 65+) on state expenditures. The author of this study describes that the GMM model is more useful for such research; however, regarding data interconnectivity, SUR (or SURE) analysis is a better modelling approach. Compared to Temsumrit's study, the presented research will not work with the share of older individuals but rather with data on the percentage representation of each generation in the labour market. The significance level at which a statistically significant correlation between the generational cohort and the examined variable was identified is set at 0.05 (5%). Since modelling certain relationships requires as many observations as possible (n-variables), the analyses will be conducted collectively for the V4 countries. Incorporating these countries will significantly increase the number of observations studied. As mentioned, the V4 countries share similar economic, demographic, social, historical, and political contexts, reducing variability that could distort the analysis results. This homogeneity allows for a better identification of specific relationships between the studied variables. Analysing data from V4 countries can reveal regional trends and patterns specific to this region and may differ from the rest of Europe. Combining data from multiple countries increases the number of observations in the analysis, which is crucial for enhancing the statistical power of the model. A more significant number of observations enables a more reliable identification of relationships between variables. Statistical data were obtained from Eurostat for the years 1998–2020.

Summary of Examined Variables in this Analysis:

(1) Labor productivity (variables y1–y10): Agriculture, industry, manufacturing, construction, trade and services, logistics, hospitality, ICT, administration, arts; (2) Employment by sector in the labour market

(variables y11–y18): Agriculture, industry, manufacturing, construction, trade and logistics, ICT, public administration, arts; (3) Other labour market indicators (variables y19–y21): Long-term unemployment, mobility, part-time employment; (4) Control variables (variables K1–K5): GDP, inflation, unemployment, public debt, value-added, government expenditures; (5) The percentage share of a given generation in the labour market (variable X). The total number of observations for each indicator is n-96 (n-24 per each V4 country).

When selecting indicators, the statistics' availability and relevance for the analysed period were considered. The main variables include labour productivity (PP) by sector, reflecting employee efficiency in production and service provision, and employment (Z), which allows for tracking structural changes in the labour market and workforce distribution among industries. Additional indicators include long-term unemployment, labour mobility, and part-time employment, which, according to literature analysis, are particularly significant for younger generations and show an increasing trend.

The control variables include GDP, reflecting macroeconomic development; inflation, affecting purchasing power and labour market demand; and unemployment, indicating shortages. Also included are public debt and government expenditures, which are linked to fiscal policy and impact the labour market and economic development. These control variables help minimise bias and account for macroeconomic factors that may influence the analysed dependent variables. For the accuracy and reliability of the models, verification tests were considered, including (1) the Normality test – Doornik-Hansen test; (2) the Heteroskedasticity test – Breusch-Pagan test.

Given the robustness of multiple analysed models for each generation and the necessity to consider econometric verification tests, several models were processed. Due to their extent, the research section will present only the final models meeting all set conditions. These models will include variables (Y and K) that demonstrated statistical significance with variable (X – generational group) at the established significance level.

5. Results and discussion

Each generational cohort entered the labour market during a specific period, with its attitudes, skills, and values shaped by the circumstances of that time. These circumstances may include technological advancements, socio-economic factors, globalisation, and changes in the education system concerning labour market needs within a given timeframe. Based on this, it can be assumed that each generation in the workforce will have specific preferences that influence labour market indicators at different levels.

Table 1. Description of the final model for determining the relationship between the Boomer generation and selected labour market indicators

Dependent/independent variable		const	Boomers	Log Boomers	GDP	Unemployment	Public debt	Added Value	Government Expenditures	R ² / adj.R ²
			x1	l_x1	K1	K3	K4	K5	K6	
l_y11 (Employment in Agriculture)	coefficient	3,57256	-0,0284743	-	-	0,120479	0,0070162	-	-0,0392360	0,793476
	p-value	1,22e-09 ***	2,23e-05 ***	-	-	6,70e-025 ***	0,0007 ***	-	0,0002 ***	0,784398
l_y15 (Employment in Trade and Logistics)	coefficient	-44,0809	0,229288	-	8,23371	-0,334906	-	-	5,45793	5,56348
	p-value	9,07e-019 ***	9,29e-028 ***	-	6,66e-024 ***	0,0199 **	-	-	1,50e-014 ***	0,0619307
y19 (LTU)	coefficient	-109,914	-	0,990043	0,172772	1,4724	-	-	-0,799230	0,621262
	p-value	0,0081 ***	-	5,15e-06 ***	0,136	8,22e-07 ***	-	-	4,71e-06 ***	0,604614
l_y20 (Mobility)	coefficient	88,3775	-	-0,486812	0,192963	-	-	-0,0604441	-0,261430	0,891911
	p-value	1,64e-013 ***	-	2,97e-07 ***	9,32e-06 ***	-	-	0,0920 *	0,0177 **	0,88716

Source: own processing

The exit of the Boomer generation from the labour market in V4 countries will significantly impact multiple sectors. The most substantial effect is expected in agriculture, where their declining share may lead to a shortage of experienced workers. These findings align with Martin and Ottemann (2016) and Marchand and Minni (2019), who highlight the decreasing proportion of older employees in the primary sector. The departure of the Baby Boomer generation from the workforce will fundamentally shape the labour market, with an anticipated shortage of experienced workers in traditional industries (Kirchnera, 2024). In contrast, the trade and logistics sector is experiencing employment growth. This trend may improve labour supply in the sector but also requires adjustments to working conditions to meet the expectations of younger cohorts.

The results also indicate a correlation between the decline of Boomers in the workforce and an increase in long-term unemployment, suggesting that younger generations (Y and X) are more vulnerable in this regard. This phenomenon may be linked to different work values, lower employer loyalty, and higher demands for work-related benefits. Furthermore, it appears that Boomers played a crucial role in stabilising labour mobility—their long-term job commitments contributed to lower mobility rates. In contrast, their departure may lead to more frequent job changes and higher workforce mobility. Migration and its likelihood decrease with age (Li & Shen, 2024), supporting the findings regarding a negative relationship with mobility.

Overall, the exit of the Boomer generation presents challenges associated with labour market modernisation, particularly in traditional sectors where their decline may weaken job stability. Altman et al. (2020) found that in the context of the academic labour market, some segments adapt more slowly to the departure of Boomers. At the same time, it creates an opportunity for market adaptation through technological innovations, retraining, and mobility support, which will be essential for ensuring the sustainable development of the labour market in the V4 region.

Table 2. Description of the final model for determining the relationship between Generation X and selected labour market indicators

Dependent/independent variable		const	Gen X	GDP	Inflation	Un-employment	Gov. Expenditures	log. Gov. Expenditures	R ² / adj.R ²
			X2	K1	K2	K3	K6	l_K6	
l_Y11 (Employment in Agriculture)	Coeff .	-0,129641	-0,129641	-0,0129746	0,04764	0,08017	-	-	0,83701
	p-value	5,95e-011***	2,25e-013***	0,0052***	3,27e-05***	1,97e-09***	-	-	0,82985
l_Y12(Employ in Industry)	Coeff .	4,88821	0,01315	-0,00318643	-	-0,0167114	-	-0,449816	0,77383
	p-value	6,80e-033***	3,72e-010***	5,83e-07***	-	1,14e-014***	-	4,07e-09 ***	0,76389
l_Y13(Empl. in Manufacturing)	Coeff .	28,93280	0,41114	-0,0768262	-	-0,504746	-0,231958	-	0,82067
	p-value	2,36e-017***	1,67e-015***	6,72e-08***	-	1,72e-019***	1,12e-08 ***	-	0,81279
l_Y16(Employment in ICT)	Coeff .	-3,30574	0,04384	0,03500	-	-	0,02190	-	0,95605
	p-value	2,44e-016***	5,86e-012***	3,81e-059***	-	-	3,11e-05 ***	-	0,95462
l_Y20(Mobility)	Coeff .	49,19210	-0,479096	0,28760	-	-	0,20056	-	0,88697
	p-value	1,76e-014***	0,0004***	1,93e-026***	-	-	0,0135 **	-	0,88329
l_Y21(Part-time Employment)	Coeff .	28,71510	-0,441512	-0,0772720	-0,151914	-	-	-	0,71675
	p-value	1,07e-021***	1,38e-023***	2,68e-010***	0,0027***	-	-	-	0,70752

Source: own processing

The results of the analysis show that Generation X plays a significant role in the employment structure of V4 countries, with its influence being most pronounced in traditional sectors. The decline of its share in agriculture is associated with a reduction in the workforce in this sector, indicating a decreasing interest among younger generations in physically demanding professions. The decline in Generation X's presence in agriculture

correlates with lower employment levels, suggesting that younger generations are less interested in physically demanding work (Widiyanti et al., 2023; Ngadi et al., 2023). Similar findings were presented by Lyons et al. (2015), who stated that Generation X in North America still relies on traditional employment, whereas younger cohorts are shifting towards technologically advanced sectors.

Conversely, in the industrial and manufacturing sectors, the impact of Generation X is positive, possibly due to higher technical skill levels and stable work engagement (Bejtkovský, 2016). Additionally, labour market demands for these skills are increasing, altering the preferences of involved stakeholders (Shaji, 2024).

A surprising finding is the positive, albeit weak, relationship between the share of Generation X and employment in the information and communication technology (ICT) sector. This trend may indicate that Generation X is a "transitional cohort" between manual professions and the digital economy. In contrast, a study by Mahmoud et al. (2021) showed that younger generations dominate the ICT sector in Western countries, while Generation X has only partially adapted.

Regarding labour mobility and flexibility, Generation X in V4 countries has a negative relationship with remote work and part-time employment trends. This result aligns with Chawla et al. (2017), who found that in the Indian context, this cohort prefers stable employment and is less adaptable to modern flexible work conditions. In contrast, Bejaković and Mrnjavac (2020) argue that in some European countries, Generation X is gradually adapting to hybrid work models, albeit to a lesser extent than younger generations.

The analysis shows that Generation X in V4 countries remains an essential workforce in traditional sectors, but its adaptation to new trends is limited. This generation is less mobile, more conservative in its work condition preferences, and slower to embrace digitalisation, which may impact its labour market competitiveness in the future.

Table 3. Description of the final model for determining the relationship between Generation Y and selected labour market indicators

Dependent/independent variable		const	Gen Y	GDP	Inflation	Unemployment	Gov. Expenditures	R ² / adj.R ²
			X3	K1	K2	K3	K6	
Y2 (Labor Productivity in Industry)	Coeff.	58,15980	1,40419	-	-	-1,61018	-	0,89175
	p-value	8,04e-032 ***	3,09e-034 ***	-	-	2,44e-015 ***	-	0,88942
Y3 (Labor Productivity in Manufacturing)	Coeff.	50,20330	1,68316	-	-	-1,99167	-	0,92306
	p-value	3,09e-028 ***	1,72e-041 ***	-	-	7,03e-018 ***	-	0,92141
Y15 (Employment in Trade and Logistics)	Coeff.	20,91160	-0,0400597	-	-0,0943260	-0,171725	0,11448	0,90855
	p-value	2,73e-039 ***	3,68e-08 ***	-	2,31e-07 ***	6,65e-016 ***	1,64e-07 ***	0,90204
Y20 (Mobility)	Coeff.	23,09170	0,38067	0,19037	-	-	0,37433	0,91480
	p-value	1,03e-07 ***	5,15e-06 ***	2,71e-08 ***	-	-	7,91e-05 ***	0,91202

Source: own processing

The analysis of labour market indicators for Generation Y in V4 countries highlights their high adaptability to technological innovations, which positively influences labour productivity. A statistically significant relationship between this generation and productivity was observed, particularly in the industry and manufacturing sectors, where their technological literacy and flexibility contribute to increased efficiency (Mahmoud et al., 2021). Similar findings were presented by Ghitza et al. (2022), who confirmed that in Western countries, Generation Y adapts better to technological changes compared to older cohorts.

Conversely, a decline in employment in the trade and logistics sectors was observed for this generation, which may be linked to a preference for innovative and dynamic industries as well as the increasing automation of traditional job positions (Heys, 2024). This trend is further supported by Sum et al. (2020), who argue that digitalisation reshapes the labour market structure, reducing the need for manual labour. A significant factor is also the increased mobility of Generation Y, indicating their willingness to change jobs more frequently and adapt to new conditions. This flexibility supports a more efficient redistribution of labour across regions and sectors, helping to mitigate regional labour market disparities (Yinghui et al., 2020).

Generation Y is currently the dominant workforce in V4 countries and plays a crucial role in the future development of the labour market. As the last sizable generation before the demographic decline, its integration into strategic labour market goals is essential to ensure long-term competitiveness. Employers must better reflect this generation's values and preferences to retain a skilled workforce in an evolving economic environment (Bejtkovský, 2016).

Table 4. Description of the Final Model for Determining the Relationship Between Generation Z and Selected Labor Market Indicators

Dependent/independent variable		Const	Gen Z	Log_Gen Z	GDP	log. GDP	Inflation	Un-employment	log. Un-employment	Gov. Expenditures	R ² / adj.R ²
			x2	l_x2	K1	l_K1	K2	K3	l_K3	K6	
l_Y8 (Labor Product. in ICT)	Coeff.	3,5007	-	0,06436	0,00641	-	-	0,00859	-	0,0056	0,6802
	p-value	9,23e-037***	-	0,0200**	6,57e-05***	-	-	0,0235**	-	0,0466**	0,6661
Y9 (Labor Product. in Administration)	Coeff.	-117,6	0,3701	-	2,35836	-	-	-	-	1,4674	0,6702
	p-value	2,04e-07***	1,18e-012***	-	2,71e-018***	-	-	-	-	0,0020**	0,6595
Y15 (Employment in Trade and Logistics)	Coeff.	-36,31	-0,233	-	-	13,0621	-0,077	-	0,5656	0,0823	0,7646
	p-value	6,81e-011***	6,04e-020***	-	-	7,25e-020***	4,20e-05***	-	0,0103**	6,86e-05***	0,7516
l_Y19 (LTU)	Coeff.	5,0656	-	0,12004	-0,01068	-	-	-	0,0239	-0,0185	0,6826
	p-value	8,59e-022***	-	0,0483**	0,0030***	-	-	-	0,0090***	0,0066**	0,6687
Y20 (Mobility)	Coeff.	30,835	0,6076	-	0,09377	-	-	-	-	0,3989	0,8394
	p-value	2,74e-010***	5,62e-09***	-	0,0413**	-	-	-	-	6,95e-05***	0,8342

Source: own processing

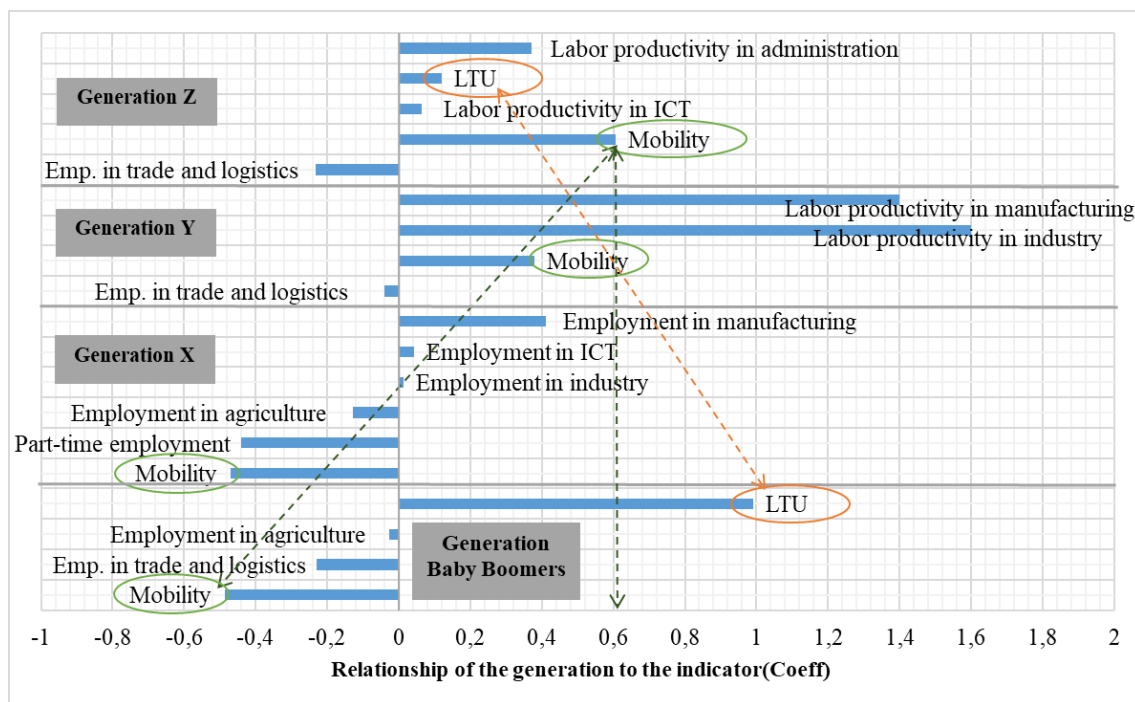
Generation Z significantly impacts labour productivity in the ICT sector; however, its statistically significant effect on employment in this sector was not confirmed. This trend suggests that generational shifts support innovation and digitalisation, but this does not necessarily translate into increased employment for younger cohorts. A similar conclusion is drawn by Oringo et al. (2020), who state that while Generation Z enhances efficiency through technological innovations, automation of work processes may reduce the number of available jobs.

Conversely, the decline in productivity in administration may be related to Generation Z's lower interest in this sector or the increasing automation of administrative processes. Similarly, the decline in employment in trade and logistics can be attributed to the development of smart industries and the decreasing need for manual labour, as confirmed by Bishop et al. (2022), who analysed the declining interest of younger generations in traditional manufacturing and logistics positions.

A positive relationship between Generation Z and labour mobility indicates that younger employees are more willing to change jobs or relocate, enhancing business competitiveness and posing challenges for employers in retaining talent. This trend is also supported by Mkhize and Mkhize (2024), who argue that Generation Z prefers flexibility and short-term employment commitments, necessitating new approaches to workforce management.

The findings further indicate a potential increase in long-term unemployment among younger generations, which may signal either weak integration of young people into the labour market or insufficient skills to meet current employer demands. Additionally, this relationship may be significant due to the rising NEET (Not in Education, Employment, or Training) trend among young generations, a growing issue at the European level. Fabrizi and Rocca (2024) and Emmanouil et al. (2024) also highlight this negative trend.

Figure 1. Comparison of Intergenerational Impact on Selected Labor Market Indicators (Evaluation of H1 – H4)



Source: own processing

The graph summarises statistically significant variables across generations and labour market indicators, highlighting the differences shaping the current labour environment. The values in the graph represent coefficient values from individual SUR analyses (Tables 2 to 5). The presented results are interpreted in accordance with hypotheses H1 to H4. Based on the hypotheses, it can be stated that statistically significant differences exist between generations and the following labour market indicators: (H1) Employment by sector; (H2) Productivity by sector; (H3) Long-term unemployment; (H4) Labor market mobility. The Boomer generation is gradually exiting the labour market and is strongly associated with traditional sectors, particularly agriculture. Their decline leads to decreased employment in this sector and is linked to rising long-term unemployment and low labour mobility.

Generation X plays a crucial role in industry and manufacturing while exhibiting a weak positive correlation with the ICT sector, making it a transitional cohort between traditional and technological industries. This finding is further supported by Lissitsa and Laor (2021), who describe Generation X as a transitional cohort. Alongside the Boomer generation, Generation X demonstrates reduced mobility, which may be due to established personal and family commitments, resulting in a lower willingness to relocate for work.

Generation Y has become the dominant labour force and contributes to productivity growth in industry and manufacturing, which is linked to the development of smart industries. While employment in trade and logistics remains stagnant, mobility within this generation has significantly increased, reflecting its openness to career changes.

Generation Z is gradually entering the labour market, particularly in the ICT sector. Conversely, traditional sectors such as administration have experienced a decline in productivity as the share of Generation Z in the labour market increases. Additionally, its higher share correlates with rising long-term unemployment, highlighting challenges such as the NEET phenomenon and the mismatch between skills and labour market demands within the V4 region.

The results highlight the interconnectedness of generational shifts and their impact on the labour market while emphasising the differences among individual cohorts. Key labour market trends include:

1. Sectoral Transformation – A gradual shift from traditional industries to "modern" sectors.
2. Flexibility and Mobility – An increase in labour mobility and flexible work arrangements, which are statistically significant, especially among younger generations.
3. Changes in Sectoral Preferences and Employment Attractiveness – A shift in generational interest in specific sectors.
4. Challenges Related to Workforce Participation – Rising long-term unemployment, initially expected to be most prominent among the Boomer generation due to workforce exhaustion and ageing. However, increasing long-term unemployment is also associated with the youngest generation, representing an underutilised labour force potential.

Changes in the labour market resulting from generational shifts represent a complex issue. These changes occur due to intergenerational disparities in values and attitudes, as well as external factors such as technological advancements, the development of smart industries, and political conditions. Vieira et al. (2024) similarly argue that generational differences are influenced by experiences acquired during early adulthood. The findings from the SUR analyses reveal several insights that may substantially impact labour market behaviour.

The Baby Boomer generation plays a crucial role in traditional sectors such as industry, agriculture, and public services. Their gradual exit from the labour market leads to labour shortages in these industries as younger generations show lower interest in them. This trend is confirmed by Hu and Huang (2023), who highlight the global nature of this issue, particularly in developed countries. The mobility of this generation is low in the European context; however, international research (Hu & Huang, 2023; Jing & Hu, 2022; Szeto et al., 2017) suggests an opposite trend, pointing to regional differences. For example, studies conducted in Sweden and China reached similar conclusions to this study, indicating that Boomers in these countries exhibit lower labour mobility (Zhao & Cao, 2020; Cassel et al., 2013).

Generation X remains a significant workforce in the industrial and manufacturing sectors while also playing a minor role in the ICT industry. Lissitsa and Laor (2021) characterise this cohort as "digital immigrants," distinguishing them from younger cohorts that grew up in a technological era. This generation has low labour mobility and a lower preference for flexible employment forms, which aligns with its preference for stability. Although Generation X remains a critical labour force, its weaker digital skills may limit its competitiveness. Kim and Park (2020) and Cirilli et al. (2019) emphasise the necessity of lifelong learning and retraining, which could help these workers better adapt to evolving labour market demands. The weaker technological skills of these generations (Boomers and X) are mainly linked to the opportunities available to them during their formative years (Chan & Lee, 2023; Lissitsa & Laor, 2021).

Generation Y's increased mobility is just one factor that distinguishes it from previous generations. Cirilli et al. (2019) also discuss the rise in mobility, aligning with this study's findings regarding the connection between this indicator and globalisation. Additionally, this generation is considered more open, contributing to increased mobility. As Bejtkovský (2016) noted, Millennials (Generation Y) are curious, open to new experiences, and focused on the present. These characteristics enable them to better adapt to changes in the work environment and actively engage in career opportunities.

Their positive relationship with labour productivity is also significant, particularly in the industrial and manufacturing sectors. Several factors may contribute to this trend. On the one hand, the rise of smart industries and technological innovations are naturally aligned with Generation Y (Dania et al., 2023; Kim & Park, 2020). On the other hand, their interest in these sectors may also stem from the significant increase in industrial job opportunities during the period when this generation entered the labour market. This development was particularly evident in Slovakia, where the industrial sector, especially the automotive industry and related businesses, experienced significant growth during their workforce entry period.

Like Generation Y, Generation Z exhibits a positive relationship with labour mobility, which may be attributed to the technological environment in which this generation was raised and its high level of digital skills. According to Dania et al. (2023), Generation Z has been exposed to technology early, contributing to its increased inclination toward technological and digital fields. However, the higher proportion of employment in this sector may result from Generation Z's capabilities and the growing demand for employees in this industry. This relationship is described by Calvo-Porrall and Pesqueira-Sanchez (2020) as reciprocal—ICT attracts this generation. Still, their presence in the sector also accelerates technological innovations and increases the demand for additional employees.

Generation Z did not demonstrate interest in the industrial and manufacturing sectors. Although, given the nature of the labour market in Slovakia and its structure, this generation is required to fill these roles, their preferences, as indicated by the research findings, are clear. Johnson (2019) supports these claims, stating that Generation Z is most qualified for digital transformation and ICT-related work. Therefore, despite this generation's lack of interest in specific employment sectors, modifying these sectors and incorporating innovative processes could help employers attract and retain workers from Generation Z. This view is shared by Johnson (2019), who argues that younger employees are eager to embrace cutting-edge technologies, as they perceive them as having a so-called "cool factor."

Conclusions

This study focused on analysing the impact of generational changes on the labour market in V4 countries, with particular attention to sectoral differences in employment, productivity, labour mobility, and long-term unemployment. The results indicate that each generation has distinct characteristics and preferences influencing labour market dynamics and structural transformations.

Findings from the SUR analyses and secondary data highlight statistically significant differences among generations in employment, productivity, long-term unemployment, mobility, and consumer preferences. Older generations, such as Boomers and Generation X, dominate traditional sectors like industry, agriculture, and public services; however, their withdrawal from the labour market poses a risk of labour shortages. Conversely, younger generations Y and Z positively impact productivity in technologically advanced sectors, such as information and communication technologies (ICT) and services. These generational differences emphasise the need for job flexibility, adaptation to technological changes, and support for continuous education.

The Baby Boomer generation remains a key workforce in traditional industries such as agriculture, manufacturing, and public services. Its gradual departure leads to declining employment in these sectors, with younger generations showing insufficient interest in replacing them. A significant finding is the low mobility of this generation, which, when combined with demographic trends, could result in labour shortages in specific industries.

Generation X is characterised by stable employment in the industrial and manufacturing sectors, with a smaller presence in ICT. Despite its limited influence on the digital sector, it is a transitional cohort bridging the traditional and digital economies. However, weaker digital skills and lower labour mobility suggest that lifelong learning and retraining will be essential to maintaining this generation's competitiveness.

Generation Y emerges as the most mobile and technologically adaptable cohort, allowing it to respond more effectively to labour market changes. It positively impacts productivity in industrial and manufacturing sectors,

particularly due to the expansion of smart industries. This trend confirms employment growth in technological sectors, though it coincides with stagnation in traditional services such as trade and logistics.

Generation Z is most prominently established in the ICT sector, with its labour mobility and digital skills fostering technological innovation and labour market digitalisation. However, it tends to avoid industrial and manufacturing sectors, which could lead to future imbalances in labour supply and demand. Despite its high technological readiness, the findings indicate an increased risk of long-term unemployment, potentially linked to the NEET phenomenon and a mismatch between graduates' skills and labour market requirements.

The research results confirm that generational changes affect labour market stability, sectoral structures, and productivity growth. The main challenges for V4 countries include labour shortages in traditional industries, the need for retraining older generations, and the integration of younger cohorts into the workforce. Furthermore, the findings contribute to identifying sectoral employment interests from a generational perspective. Understanding generational preferences—such as the need for greater flexibility among younger generations or increased motivation for education among older generations—enables the development of targeted work environments and benefits. Ultimately, this could enhance firms' competitiveness in the labour market and reduce employee turnover. The applied SUR methodology has proven to be an effective tool for identifying generational disparities and may serve as a model for further research on similar topics.

The study's limitations are linked to potential extensions of the analysis. Future research should consider incorporating additional control variables, such as integrating smart industry into the analysis. Although data on this aspect have only been available since 2014, their inclusion could more precisely differentiate the impact of technological changes from generational differences. Incorporating this control variable could better account for technological progress and thus refine the analysis of intergenerational disparities.

References

- Abbasi, M. A., Amran, A., & Sahar, N. E. (2024). Assessing the impact of corporate environmental irresponsibility on workplace deviant behavior of generation Z and millennials: A multigroup analysis. *International Journal of Ethics and Systems*, 40(1), 45-67. <https://doi.org/10.1108/IJOES-05-2022-0099>
- Abou Assi, K., Holt, S., & McGinnis Johnson, J. (2019). Job Mobility among Millennials: Do They Stay or Do They Go? (SSRN Scholarly Paper 3470269). <https://doi.org/10.1177/0734371X19874396>
- Altman, Y., Baruch, Y., Zoghbi Manrique-de-Lara, P., & Viera Armas, M. M. (2020). Baby boomers at the cusp of their academic career: Storming ahead, Hanging on, or Calling it a day. *Studies in Higher Education*, 45(7), 1335-1350. <https://doi.org/10.1080/03075079.2019.1610864>
- Balytska, M., Honchar, I., Rašticová, M., Versal, N., Tkalenko, N., & Prykaziuk, N. (2023). Unlocking the Potential Under Ageing Labor Force and Digitalization Challenges. 2023 IEEE 4th KhPI Week on Advanced Technology (KhPIWeek), 1-7. <https://doi.org/10.1109/KhPIWeek61412.2023.10313005>
- Bejaković, P., & Mrnjavac, Ž. (2020). The importance of digital literacy on the labour market. *Employee Relations: The International Journal*, 42(4), 921-932. <https://doi.org/10.1108/ER-07-2019-0274>
- Bejtkovský, J. (2016). The Employees of Baby Boomers Generation, Generation X, Generation Y and Generation Z in Selected Czech Corporations as Concoisseurs of Development and Competitiveness in their Corporation. *Journal of Competitiveness*, 8(4), 105-123. <https://doi.org/10.7441/joc.2016.04.07>
- Bicakova, A., Cortes, G. M., & Mazza, J. (2023). Make your own luck: The wage gains from starting college in a bad economy. *Labour Economics*, 84, 102411. <https://doi.org/10.1016/j.labeco.2023.102411>
- Bishop, Yarbrough, & Harris. (2022). Understanding the Factors Influencing Gen Z and Millennial Career Choices: What it Means for Manufacturing. ISE Annual Conference. Proceedings; Norcross (2022), 1-10. <https://www.proquest.com/docview/2715838929?sourcetype=Scholarly%20Journals>
- Calvo-Porrá, C., & Pesqueira-Sanchez, R. (2020). Generational differences in technology behaviour: Comparing millennials and Generation X. *Kybernetes*, 49(11), 2755-2772. <https://doi.org/10.1108/K-09-2019-0598>

- Cassel, S. H., Macuchova, Z., Rudholm, N., & Rydell, A. (2013). Willingness to commute long distance among job seekers in Dalarna, Sweden. *Journal of Transport Geography*, 28, 49-55. <https://doi.org/10.1016/j.jtrangeo.2012.10.011>
- Chan, C. K. Y., & Lee, K. K. W. (2023). The AI generation gap: Are Gen Z students more interested in adopting generative AI such as ChatGPT in teaching and learning than their Gen X and millennial generation teachers? *Smart Learning Environments*, 10(1), 60. <https://doi.org/10.1186/s40561-023-00269-3>
- Chawla, D., Dokadia, A., & Rai, S. (2017). Multigenerational Differences in Career Preferences, Reward Preferences and Work Engagement among Indian Employees. *Global Business Review*, 18(1), 181-197. <https://doi.org/10.1177/0972150916666964>
- Cirilli, E., Nicolini, P., & Mandolini, L. (2019). Digital Skills from Silent to Alpha Generation: an Overview. [EDULEARN19 Proceedings](https://doi.org/10.21125/edulearn.2019.1271) 11th International Conference on Education and New Learning Technologies, 1-3 July, 2019, Palma, Spain 5134-5143. <https://doi.org/10.21125/edulearn.2019.1271>
- Coliander, E. (2023). Finding the Perfect Fit—A Study of Person-Organisation Fit Between Generation Z and Employers. Master Thesis, Online: <https://uu.diva-portal.org/smash/get/diva2:1777933/FULLTEXT01.pdf>
- Czerwińska-Lubszczyk, A., & Jankowiak, N. (2025). Motivation in The Workplace – A Generational Perspective. *Management Systems in Production Engineering*, 33(1), 100-114. <https://doi.org/10.2478/mspe-2025-0011>
- Dania, T., Chládková, H., Duda, J., Kožíšek, R., & Hrdličková, A. (2023). The motivation of generation Z: A prototype of the Mendel University student. *The International Journal of Management Education*, 21(3), 100891. <https://doi.org/10.1016/j.ijme.2023.100891>
- Egerová, D., Komárková, L., & Kutlák, J. (2021). Generation Y And Generation Z Employment Expectations: A Generational Cohort Comparative Study From Two Countries. *E+M Ekonomie a Management*, 24(3), 93-109. <https://doi.org/10.15240/tul/001/2021-03-006>
- Elstad, J. I. (2021). Will more education work? In A. Falch-Eriksen, M. Takle, & B. Slagsvold, *Generational Tensions and Solidarity Within Advanced Welfare States* (1st ed., pp. 111-130). Routledge. <https://doi.org/10.4324/9781003129592-9>
- Emmanouil, E., Chatzichristos, G., Herod, A., & Gialis, S. (2024). In what way a ‘Guarantee for youth’? NEETs entrapped by labour market policies in the European Union. *Journal of Youth Studies*, 27(8), 1207-1226. <https://doi.org/10.1080/13676261.2023.2211943>
- European Commission. Eurostat. (2024). Demography of Europe. Publications Office. <https://ec.europa.eu/eurostat/web/interactive-publications/demography-2024>
- Eyoun, K., Chen, H., Ayoun, B., & Khelifat, A. (2020). The relationship between purpose of performance appraisal and psychological contract: Generational differences as a moderator. *International Journal of Hospitality Management*, 86, 102449. <https://doi.org/10.1016/j.ijhm.2020.102449>
- Fabrizi, E., & Rocca, A. (2024). NEET status duration and socio-economic background. *Socio-Economic Planning Sciences*, 95, 101986. <https://doi.org/10.1016/j.seps.2024.101986>
- Fuchs-Schündeln, N., & Schündeln, M. (2020). The Long-Term Effects of Communism in Eastern Europe. *Journal of Economic Perspectives*, 34(2), 172-191. <https://doi.org/10.1257/jep.34.2.172>
- Gagnon, E., Johannsen, B. K., & López-Salido, D. (2021). Understanding the New Normal: The Role of Demographics. *IMF Economic Review*, 69(2), 357-390. <https://doi.org/10.1057/s41308-021-00138-4>
- Giannini, M., Fiorelli, C., & Martini, B. (2022). Ageing in the labour market: A spatial VAR approach. *Spatial Economic Analysis*, 17(4), 538-556. <https://doi.org/10.1080/17421772.2022.2036361>
- Giupponi, G., & Machin, S. (2024). Labour market inequality. *Oxford Open Economics*, 3(Supplement_1), i884-i905. <https://doi.org/10.1093/oec/odad039>
- Gurrutxaga, M. (2020). Incorporating the life-course approach into shrinking cities assessment: The uneven geographies of urban population decline. *European Planning Studies*, 28(4), 732-748. <https://doi.org/10.1080/09654313.2019.1634007>
- Hans, S., Nayeem, A. M., Mikkilineni, S., & Gupta, R. (2023). Exploring the relationship between generational diversity and knowledge sharing: The moderating role of workplace intergenerational climate, boundary-spanning leadership and respect. *Employee Relations: The International Journal*, 45(6), 1437-1454. <https://doi.org/10.1108/ER-11-2022-0507>
- Heys, E. (2024). Cultural Evolution: Measuring Differences in Generational Values – Berkeley Institute for Young Americans. <https://youngamericans.berkeley.edu/2024/06/cultural-evolution-measuring-differences-in-generational-values/>
- Hu, Y., & Huang, J. (2023). Delineating and comparing local labor market geographies of Millennials, Generation Xers, and Baby Boomers. *Travel Behaviour and Society*, 30, 325-334. <https://doi.org/10.1016/j.tbs.2022.10.012>
- Jacobsen, J., Schieferdecker, D., Gerstorf, D., Hutter, S., & Specht, J. (2023). Long-Term Dynamics of Voluntary Engagement: Differentiating Social Structural from Cohort and Period Effects. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 34(4), 861-871. <https://doi.org/10.1007/s11266-022-00518-y>

- Jiang, M., Kazekami, S., Yasuda, H., & Yugami, K. (2024). Aging Workforce, Productivity, and Wages in Japan. *Work, Aging and Retirement*, 10(4), 331-344. <https://doi.org/10.1093/workar/waad020>
- Jing, Y., & Hu, Y. (2022). The unequal commuting efficiency: A visual analytics approach. *Journal of Transport Geography*, 100, 103328. <https://doi.org/10.1016/j.jtrangeo.2022.103328>
- Johnson, K. (2019, June 17). Workforce transformation in the intelligent manufacturing era. Microsoft Industry Blogs. <https://www.microsoft.com/en-us/industry/blog/manufacturing-and-mobility/2019/06/17/workforce-transformation-in-the-intelligent-manufacturing-era/>
- Kalleberg, A. L. (2020). Labor Market Uncertainties and Youth Labor Force Experiences: Lessons Learned. *The ANNALS of the American Academy of Political and Social Science*, 688(1), 258-270. <https://doi.org/10.1177/0002716220913861>
- Kim, J., & Park, C. (2020). Education, skill training, and lifelong learning in the era of technological revolution: A review. *Asian-Pacific Economic Literature*, 34(2), 3-19. <https://doi.org/10.1111/apel.12299>
- Kinger, N., & Kumar, S. (2023). Generational Differences In Work Values In The Workplace. *Folia Oeconomica Stetinensia*, 23(2), 204-221. <https://doi.org/10.2478/fofi-2023-0027>
- Kirchner, I. (2024). Caring Communities: Vision und Handlungsbedarfe. In A. Schwinger, A. Kuhlmeier, S. Greß, J. Klauber, K. Jacobs, & S. Behrendt (Eds.), *Pflege-Report 2024: Ankunft der Babyboomer: Herausforderungen für die Pflege* (pp. 27-41). Springer. https://doi.org/10.1007/978-3-662-70189-8_2
- Klopotan, I., Aleksić, A., & Vinković, N. (2020). Do Business Ethics and Ethical Decision Making Still Matter: Perspective of Different Generational Cohorts. *Business Systems Research Journal*, 11(1), 31-43. <https://doi.org/10.2478/bsrj-2020-0003>
- Kupczyk, T., Górski, A., Urbańska, K., Ucieklak-Jeż, P., & Wierzbński, B. (2024). Values held by generation X, Y, Z employees as predictors of work motivation. *European Research Studies Journal*, XXVII(4), 1566-1583. <https://doi.org/10.35808/ersj/3885>
- Kuyken, K., & Costanza, D. (2024). Because Work is Changing: A New Paradigm for Intergenerational Workplace Knowledge Sharing. *Journal of Intergenerational Relationships*, 0(0), 1-17. <https://doi.org/10.1080/15350770.2024.2302626>
- Kyzlinkova, R., & Stastna, A. (2018). Fatherhood in a Changing Society: Shifts in Male Fertility Patterns. *Sociological Research Online*, 23(2), 328-353. <https://doi.org/10.1177/1360780418754565>
- Lee, D., Park, J., & Shin, Y. (2023). Where Are the Workers? From Great Resignation to Quiet Quitting (w30833; p. w30833). National Bureau of Economic Research. <https://doi.org/10.3386/w30833>
- Li, S., Shen, J. (2024). Dynamics of Intercity Migration Propensity in China: Evidence from an Age-Period-Cohort Analysis. *Popul Res Policy Rev* 43, 66. <https://doi.org/10.1007/s11113-024-09912-4>
- Lissitsa, S., & Laor, T. (2021). Baby Boomers, Generation X and Generation Y: Identifying generational differences in effects of personality traits in on-demand radio use. *Technology in Society*, 64, 101526. <https://doi.org/10.1016/j.techsoc.2021.101526>
- Lissitsa, S., Zychlinski, E., & Kagan, M. (2022). The Silent Generation vs Baby Boomers: Socio-demographic and psychological predictors of the “gray” digital inequalities. *Computers in Human Behavior*, 128, 107098. <https://doi.org/10.1016/j.chb.2021.107098>
- Maan, P., & Srivastava, D. K. (2022). Examining the role of team climate, transactive memory system, and team leader humility in teams: An empirical study of Indian generational cohorts. *Benchmarking: An International Journal*, 30(9), 3302-3327. <https://doi.org/10.1108/BIJ-11-2021-0658>
- Mahmoud, A. B., Berman, A., Reisel, W., Fuxman, L., & Hack-Polay, D. (2024). Examining generational differences as a moderator of extreme-context perception and its impact on work alienation organisational outcomes: Implications for the workplace and remote work transformation. *Scandinavian Journal of Psychology*, 65(1), 70-85. <https://doi.org/10.1111/sjop.12955>
- Mahmoud, A. B., Fuxman, L., Mohr, I., Reisel, W. D., & Grigoriou, N. (2021). “We aren’t your reincarnation!” Workplace motivation across X, Y and Z generations. *International Journal of Manpower*, 42(1), 193-209. <https://doi.org/10.1108/IJM-09-2019-0448>
- Manning, A., & Petrongolo, B. (2024). Monopsony in local labour markets. *Oxford Open Economics*, 3(Supplement_1), i951-i958. <https://doi.org/10.1093/ooec/odad061>
- Marchand, O., & Minni, C. (2019). The Major Transformations of the French Labour Market Since the Early 1960s. *Economie et Statistique / Economics and Statistics* <https://doi.org/10.24187/ecostat.2019.510t.1989>
- Martin, T. N., & Ottemann, R. (2016). Generational Workforce Demographic Trends and Total Organizational Rewards Which Might Attract and Retain Different Generational Employees. *Journal of Behavioral and Applied Management*, 16(2). <https://jbam.scholasticahq.com/article/1160-generational-workforce-demographic-trends-and-total-organizational-rewards-which-might-attract-and-retain-different-generational-employees>

McCrindle, M. (2018). The ABC of XYZ: Understanding the Global Generations. <https://mccrindle.com.au/resource/book/the-abc-of-xyz/>

Mkhize P., P., & Mkhize L., L. (2024, November 28). (PDF) Navigating the Fourth Industrial Revolution: Generational Differences, COVID-19 Impact, and Knowledge Sharing in the Modern Workplace. ResearchGate. https://www.researchgate.net/publication/386135373_Navigating_the_Fourth_Industrial_Revolution_Generational_Differences_COVID-19_Impact_and_Knowledge_Sharing_in_the_Modern_Workplace

Nešpor, Z., & Večerník, J. (2023). Empirical Research on Social Stratification in the Visegrád Countries: An Overview. *Polish Sociological Review*, 1, 03-26. <https://doi.org/10.26412/psr221.01>

Ngadi, N., Zaelany, A. A., Latifa, A., Harfina, D., Asiati, D., Setiawan, B., Ibnu, F., Triyono, T., & Rajagukguk, Z. (2023). Challenge of Agriculture Development in Indonesia: Rural Youth Mobility and Aging Workers in Agriculture Sector. *Sustainability*, 15(2), Article 2. <https://doi.org/10.3390/su15020922>

Oringo, J., Ndegwa, P., & Omari, D. (n.d.). The Role of Generation Z Employees on Performance of Kenyan Firms. Retrieved March 5, 2025, from https://www.researchgate.net/publication/345633607_The_Role_of_Generation_Z_Employees_on_Performance_of_Kenyan_Firms

Poór, J., Juhász, T., Caha, Z., Stor, M., & Haromszeki, L. (2025). Factors influencing labour shortages in Visegrad (V4) countries with regard to difficult economic environments. *Regional Statistics*, 15(1), 90-116. <https://doi.org/10.15196/RS150105>

Rentería, E., Souto, G., Istenič, T., & Sambt, J. (2024). Generational economic dependency in aging Europe: Contribution of education and population changes. *The Journal of the Economics of Ageing*, 27, 100485. <https://doi.org/10.1016/j.jeoa.2023.100485>

Sagituly, G., & Guo, J. (2023). Job satisfaction and organisational commitment: Comparing Generations X and Y. *Innovation: The European Journal of Social Science Research*, 37(4), 1185-1204. <https://doi.org/10.1080/13511610.2022.2163622>

Shaji, A. G. (2024). Artificial Intelligence and the Future of Work: Job Shifting Not Job Loss. <https://doi.org/10.5281/ZENODO.10936490>

Smeak, R. (2020). Safety in the Multigenerational Workplace. *Professional Safety*, 65(05), 22-27. <https://onepetro.org/PS/article-abstract/65/05/22/181583/Safety-in-the-Multigenerational-Workplace?redirectedFrom=PDF>

Stojanova, H., Raguž, I. V., & Pichová, K. (2024). The work attitude and work conditions of older age workforce as a part of the social dimension of sustainability in Visegrad Group countries. *European Journal of International Management*, 22(3), 354-375. <https://doi.org/10.1504/EJIM.2024.136456>

Sum, G., Ishida, M., Koh, G. C.-H., Singh, A., Oldenburg, B., & Lee, J. T. (2020). Implications of multimorbidity on healthcare utilisation and work productivity by socio-economic groups: Cross-sectional analyses of Australia and Japan. *Plos One*, 15(4), e0232281. <https://doi.org/10.1371/journal.pone.0232281>

Szeto, W. Y., Yang, L., Wong, R. C. P., Li, Y. C., & Wong, S. C. (2017). Spatio-temporal travel characteristics of the elderly in an ageing society. *Travel Behaviour and Society*, 9, 10-20. <https://doi.org/10.1016/j.tbs.2017.07.005>

Tan, Y., Liu, X., Sun, H., & Zeng, C. (2022). Population ageing, labour market rigidity and corporate innovation: Evidence from China. *Research Policy*, 51(2), 104428. <https://doi.org/10.1016/j.respol.2021.104428>

Temsumrit, N. (2023). Can aging population affect economic growth through the channel of government spending? *Heliyon*, 9(9). <https://doi.org/10.1016/j.heliyon.2023.e19521>

Vasilescu, M. D., Serban, A. C., Dimian, G. C., Aceleanu, M. I., & Picatoste, X. (2020). Digital divide, skills and perceptions on digitalisation in the European Union—Towards a smart labour market. *Plos One*, 15(4), e0232032. <https://doi.org/10.1371/journal.pone.0232032>

Vieira, J., Gomes da Costa, C., & Santos, V. (2024). Talent Management and Generation Z: A Systematic Literature Review through the Lens of Employer Branding. *Administrative Sciences*, 14(3), Article 3. <https://doi.org/10.3390/admsci14030049>

Visser, M., Gesthuizen, M., Kraaykamp, G., & Wolbers, M. H. J. (2018). Labor Market Vulnerability of Older Workers in the Netherlands and its Impact on Downward Mobility and Reduction of Working Hours. *Work, Aging and Retirement*, 4(3), 289-299. <https://doi.org/10.1093/workar/wax017>

Widiyanti, E., Karsidi, R., Wijaya, M., & Utari, P. (2023). How intergenerational farmers negotiate their identity in the era of Agriculture 4.0: A multiple-case study in Indonesia. *Open Agriculture*, 8(1), 20220219. <https://doi.org/10.1515/opag-2022-0219>

Woźniak-Jęchorek, B. (2020). Labour Market Institutions and Productivity. https://www.academia.edu/94411057/Labour_Market_Institutions_and_Productivity

Yang, T., Liu, Y., Chen, Z., & Deng, J. (2023). Change of productivity loss due to presenteeism among the ageing workforce: Role of work support, workplace discrimination, and the work-nonwork interface. *Human Resource Management Journal*, 33(2), 491-510. <https://doi.org/10.1111/1748-8583.12475>

Yen, W.-S., Su, C.-J., Lan, Y.-F., Mazurek, M., Kosmaczewska, J., Švagždienė, B., & Cherenkov, V. (2023). Adolescents' use of influence tactics with parents in family travel decision making: A cross-societal comparison in Eastern Europe. *The Social Science Journal*, 60(3), 478-490. <https://doi.org/10.1080/03623319.2020.1745519>

Yinghui, X., Leon, J. D., & Palaoag, T. D. (2020). Exploring the influence of work values of the generation y knowledge workers on turnover tendency. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(6), Article 6.

Zhao, P., & Cao, Y. (2020). Commuting inequity and its determinants in Shanghai: New findings from big-data analytics. *Transport Policy*, 92, 20-37. <https://doi.org/10.1016/j.tranpol.2020.03.006>

Funding: This work was supported under the research project No. APVV-VV-MVP-24-0299 - New trends in human resource management in the context of global challenges of the 21st century. This research work was created within the project "Changes in the value orientation of employees under the influence of generational change ", code of the project D14_2024, based on the financial support from the Internal Grant Scheme of the Alexander Dubček University of Trenčín (Call for proposals: Early Stage Grants).

Author Contributions: Conceptualisation: *Grenčíková, Rigó*; methodology: *Rigó*; data analysis: *Rigó, Šrámka*, writing—original draft preparation: *Rigó, Grenčíková*, writing; review and editing: *Šrámka, Navickas*; visualisation: *Grenčíková, Navickas*. All authors have read and agreed to the published version of the manuscript.

Martin ŠRÁMKA, works as a vicerector for education at Alexander Dubček University in Trenčín. He is an assistant professor in the Department of Management and Human Resources Development, Faculty of Social and Economic Relations. He focuses his research mainly on the labour market, human resources management and personnel management. He has published papers in various international scientific journals indexed on the Web of Science and Scopus.

ORCID ID: <https://orcid.org/0000-0001-7229-3015>

Richard RIGÓ is a PhD student at the Alexander Dubček University in Trenčín in the Department of Management and Human Resources Development, His work focuses on the labour market and changes in the labour market and personnel management in the context of generations changes in the labour market.

ORCID ID: <https://orcid.org/0009-0007-8056-2538>

Adriana GREŇČÍKOVÁ is an Associate Professor at the Department of Personnel Management and Human Resources Management, Faculty of Social and Economic Relations at the Alexander Dubcek University of Trenčín, Slovakia. Fields of scientific interest: Human resource management, personnel management, labour market issues.

ORCID ID: <https://orcid.org/0000-0003-1077-1127>

Valentinas NAVICKAS is a Professor at the Lithuania Business College, Lithuania. Fields of scientific interest: international economics, clusterisation, competitiveness, economic growth, and corporate social responsibility.

ORCID ID: <https://orcid.org/0000-0002-7210-4410>

