Inzinerine Ekonomika-Engineering Economics, 2025, 36(2), 212–225

Generational Disparities and Their Impact on Sectoral Labour Demand

Richard Rigo[1], Adriana Grencikova[1], Karol Krajco[1], Valentinas Navickas[2], Vytautas Snieska[2]

[1]*Alexander Dubcek University in Trencin*
Studentska 2, 915 50, Trencin, Slovak Republic
E-mail. richard.rigo@tnuni.sk; adriana.grencikova@tnuni.sk; karol.krajco@tnuni.sk

[2]*Kaunas University of Technology*
Gedimino str. 50-501, LT- 44239 Kaunas, Lithuania
E-mail. valentinas.navickas@ktu.lt; vytautas.snieska@ktu.lt

https://doi.org/10.5755/j01.ee.36.2.39850

This study estimates the economic impacts of demographic changes driven by generational changes on the labour market and business environment in the Slovak Republic and selected European countries (Hungary, Poland, Czech Republic, Germany, France, Italy). It examines how demographic changes influence sectoral labour demand and the number of business entities. The main research questions are: RQ1: How do generational disparities affect sectoral demand? RQ2: How do generational disparities affect the number of entrepreneurs in the labour market? A comparative analysis of statistical data from 2013 to 2023 shows that sectors such as wholesale, retail, industry, and information and communication technology (ICT) face a shortage of skilled labour. To address RQ2, a regression analysis covering the long-term period from 1995 to 2020 is applied. The evaluation of RQ2 is supported by two hypotheses (H). H1: Changes in population development affect the number of enterprises at a statistically significant level. H2: Changes in population development affect the size of companies in a statistically significant variable. The results indicate that demographic trends associated with generational changes are reshaping the labour market structure, with the most significant impact observed in industries with high skill requirements and the segment of small and medium-sized enterprises. These businesses are flexible yet particularly vulnerable to shortages of skilled labour.

Keywords: *Labour Market; Intergenerational Exchange; Labour Supply; Labour Demand; Generation Changes.*

Introduction

The labour market has undergone significant structural changes over the past decade, largely influenced by generational disparities. Changes in the demographic structure, such as population aging, declining birth rates, and increasing life expectancy, are putting pressure on the business environment and shaping sectoral demand for labour (Clementi, 2024). This trend is particularly pronounced in European Union countries, where demographic and economic factors intersect with technological innovations, automation, and changing work preferences of younger generations (Bonacini, Patriarca & Santoni, 2024). Intergenerational exchange has recently come to the attention of researchers and employers because it raises several issues in several aspects. Similarly, demand in the labour market across organisational typologies has also attracted the attention of scholars and researchers (Chatterjee *et al.*, 2022). The nature of the workforce and with it the demands on employers are changing with the retirement of baby boomers and the emergence of new generations such as millennials and Generation Z (Ziółkowska 2021). Significant economic changes are gradually occurring, affecting not only the labor market but also the dynamics of the business sector. These changes are particularly pronounced in small and medium-sized enterprises (SMEs), where generational differences in work preferences and entrepreneurial ambitions influence succession, growth, and the innovation capacity of firms (Rodriguez *et al.*, 2024). Each generation has different values and expectations for work. While older generations often emphasise stability and hierarchy, younger generations are looking for meaning, flexibility, and the opportunity for personal growth. Younger employees are often more tech-savvy, prefer teamwork, and are open to new ways of working, such as the home office (Elstad, Slagsvold, Hansen 2021; Suomaki *et al.*, 2019; Gray *et al.*, 2019). The changes in the value preferences of the workforce has a direct impact on sectoral demand for labor. While industrial and manufacturing sectors face challenges with a shortage of skilled labor, there is growing interest in the service sectors, information technology, and the digital economy (Clementi, 2024). Despite the significance of this issue, the impact of demographic changes on sectoral employment and the business environment remains underexplored. Therefore, this study investigates how generational disparities influence: Sectoral demand for labor (RQ1) – What are the consequences of demographic changes on the distribution of job opportunities across sectors? The prevalence of business entities (RQ2) – To what extent do demographic factors affect the number and size of businesses? As a result of rapid technological advances, skills that are in demand today may become obsolete tomorrow. Employees need to be able to continuously learn and adapt. Generational change brings greater diversity in the workplace, which can be rewarding but also challenging to manage. Although there is a wide range of research focusing on generational differences in work preferences and technological skills, previous studies

have only marginally addressed the relationship between demographic changes and the structure of the business environment. The current literature lacks an empirical perspective on how demographic factors influence sectoral demand for labor and the prevalence of business entities of different sizes. From a macroeconomic perspective, generational changes are reflected in shifts in the structure of aggregate demand. The consumer behavior of different generations shapes demand for goods and services, which impacts the sectoral structure of the economy and employment in various sectors (Bonacini, Patriarca & Santoni, 2024). In the context of these changes, significant changes are taking place in the labour market, manifested both on the labour demand side and on the labour supply side. The demand is influenced by the introduction of new technologies in all spheres of society; on the one hand, the demand for traditional jobs is decreasing and, on the other hand, the demand for a workforce that adapts to new conditions, has appropriate technological skills, is creative, and has the ability and motivation to learn is growing significantly (Holzer J., 2022). The developments in the labor market thus influence not only business strategies but also investments in education and employee retraining, which have become a key factor in the competitiveness of businesses (Ragolane, 2024). The adoption of new technologies is extremely important for the labour market, with Su et al. (2022) stating that the development of technology has revitalized the labour market. Therefore, there is a need to look for the right mix of cognitive, technical, and noncognitive skills. These can ensure success not only for individuals but also potentially for the enterprise itself (Polakova & Klimova 2019). Research suggests that companies that can effectively integrate different generations of employees and adapt to changes in labor demand achieve higher productivity and innovation potential (Clementi, 2024). On the other hand, we are noticing a decline in the labour supply due to unfavourable demographic developments, especially in Europe, as well as a change in the value and motivational orientation of the incoming generations. In the context of the labour market, it is necessary to assume that labour demand is a demand derived from aggregate demand and, as such, is influenced by the consumption behaviour of individual generations, which ultimately has an impact on output of firms, the organisation of work, as well as the composition of the workforce in firms. Changes in the demand for goods and services are reflected in sectoral employment trends, leading to regional differences in economic development. Countries with a larger share of the older population are experiencing a decline in the workforce in traditional sectors, while younger economies are adapting more quickly to new technological and economic challenges (Rodriguez *et al.*, 2024). The size of each generational cohort varies between countries in the world. The composition of generations and the dominance, i.e., the largest generational cohort, in each country is influenced by demographic developments such as fertility and longevity (UN, 2024; Spitznagel, 2020). Given these differences, it is essential to analyze demographic changes and generational disparities in the context of individual economies, as their impact on sectoral labor demand and the prevalence of businesses can vary significantly depending on regional specifics and economic development (Clementi, 2024).

Literature Review

Generational disparities affect the overall labor market (both labor supply and demand), it can be argued that these disparities have a significant impact on the economy of nations. The analysis of published studies shows that generational cohorts in the context of the labour market and issues related to this area are becoming increasingly interesting to researchers. This is evidenced by the growing number of publications and scientific studies in the Web of Science database. From the established search keyword string "generation cohort* and labour market", 238 publications are available (06/2024), with up to 164 publications published in the last 10 years. The number of studies after a deeper literature analysis, where studies from the 10-year period are included, indexed by SSCI, with open access and from the fields of management and economics, the resulting number is n-126. The highest number of publications is from the USA (n-37) followed by Germany (n-14), Canada (n-14), the Netherlands (n-12), England, and Sweden (n-9). Most studies dealing with generational cohorts and the labour market have been conducted in Western countries. Within other countries, research is mainly concentrated in Asia (China, Taiwan, Korea - total, n-10). The remaining number of publications have been published in African countries, Russia, and Australia (one study in each country).

Figure 1. Keyword Map of the Final Set of Articles under the Search String "Generation Cohort* and Labour Market"

The keywords most frequently cited in indexed studies over the last 10 years dealing with generational cohorts and the labour market were: employment (n-59), education (n-54), gender/gender (n-53), discrimination and unemployment (n-39), age/age (n-29).

Among the most prominent authors in terms of publishing on the topic of generational change in the context of the labour market, attention can be paid to foreign authors: Mahmoud (2024, 2021); Barhate and Dirani (2022) and domestic authors, respectively, from the region of Slovakia and the Czech Republic: Eger (2023); Sestakova (2023); Grmanova (2022), Egerova (2021); Babeľová a Stareček (2021).

Based on the analysis of the scientific studies and publications carried out, it is possible to identify several areas in which research has focused in the context of generational and labour market effects. Although the academic literature discusses a wide range of social and psychological factors associated with generational differences, the economic aspect of this issue remains partially unexplored, particularly in the context of sectoral labor demand and its structural changes. These research trends and issue areas, which reflect the disparities in generational change and its impacts on the labour market, focus on the following themes:

The surveys most often dealt in conjunction with labour market supply:

1. Changing value orientations across generations - studies have focused on broader aspects of value orientations across generations, which include changes in job requirements, employer loyalty, and career development. These changes subsequently influence not only individuals' decisions to enter the labor market but also the demand from companies for employees with certain values and work attitudes (So Hee & Yeojin, 2023; Barhate, & Dirani 2022; Sakdiyakorn & Wattanacharoensil, 2018).

2. Differences in skills and abilities, particularly in terms of technological progress, which is now significantly faster than in the past. Companies are increasingly investing in retraining programs to compensate for generational differences in technological literacy, which has economic implications for employer costs and labor productivity (Ma & Fank, 2024; Lorenz *et al.*, 2024).

3. Differences in population indicators between generational groups - studies have focused on demographic factors including declining birth rates, ageing populations, changes in life expectancy and differences in quality of life and health between generations. These factors affect not only the labour market but also social policy and the long-term sustainability of society (Renteria *et al.*, 2024; Hu & Huang, 2023). Demographic changes also impact the business environment – particularly in the area of small and medium-sized enterprises, which are more sensitive to fluctuations in the availability of labor (Xiang *et al.*, 2023).

In the context of labour market demand, these were mainly in the following areas:

1. the increasing dominance of the service sector - a relatively large number of studies focus on research carried out in the service sector. This sector is gradually becoming dominant in several economies, replacing the industrial or primary sectors in terms of job creation and GDP generation. This increase in connection with generational change may be precisely due to the context of changes in values and demands between generations (Giupponi & Machin 2024; Bordian *et al.*, 2023; Acheampong 2021; Pandita 2021)

2. Job flexibility - Job flexibility is becoming important, especially for the younger workforce (Gen, Y. and Gen, Z.), with the possibilities for job flexibility being deepened by technological progress. Technologies such as digital platforms and artificial intelligence are bringing new forms of employment that often bypass traditional employment relationships. It is important for companies as demand creators in the labour market to be more open to new trends that new generations bring with them in the labour market from a competitive perspective. This trend has implications for the labor economy, as it leads to an increase in atypical forms of employment, such as the gig economy and freelancing, which also impacts the stability of social systems and tax revenues of states (Giupponi & Machin 2024; Bordian *et al.*, 2023; Acheampong 2021; Pandita 2021)

3. Change in consumer behaviour: There are differences in values and attitudes between generations that have a significant impact on consumer behaviour. This behaviour is influenced by internal attitudes (due to the protection of nature, health, etc., e.g., by buying eco or organic products) and the external environment (availability of goods and services and wage conditions). Economic models of consumer behavior show that generational changes lead to a shift away from traditional consumption models and influence the demand for certain types of jobs (Nwobodo Weissmann 2024; Thangavel *et al.*, 2021; Kotler *et al.*, 2019).

In addition to the research areas identified above, a relatively large number of studies have focused, for example, on firm succession, migration, gender equality or gender gaps, or directly on labour market indicators such as employment and unemployment. These topics are important in economic literature for understanding the long-term sustainability of business models and the efficiency of labor markets. These areas can be included in the main research trends mentioned above, but due to their higher representation among the analysed studies, it is appropriate to highlight the above research topics separately, and therefore in the present study we have decided to analyse the relationship between population changes and their impact on the total number of firms in terms of their size and the relationship between sectoral demand.

In the context of changes in the labour market due to generational changes, one can particularly notice the transformation of work-related values and attitudes, and the impact of these differing values on employment trends and career preferences. Furthermore, one of the most significant problems arising from intergenerational differences is negative demographic development, which leads to shortages in the labour market. Economic analysis of the impacts of demographic changes shows that regions with a higher proportion of older populations experience a decline in entrepreneurial activity, which affects local labor demand and GDP growth (Hu *et al.*, 2021). This trend arises in combination with an intergenerational decline in fertility and a rise in life expectancy (Xiang *et al.*, 2023). Negative demographic trends are not a phenomenon exclusive to developed countries, but they are gradually becoming a global problem that will require comprehensive solutions and changes (Nagarajan *et al.*, 2021). In addition to projections that mark a decline in the total population and, therefore, a decline in the workforce (Rouzet, 2019, Dougherty *et al.*, 2022), there is a change in generational representation that leads to conflict, as different generations are determined by different realities that occurred in their creation and are therefore different in certain features (Egerova et al., 2021; Mahmoud et al., 2021). It is often stated in the literature that Generation Z is already able to replace older generations in numbers and its ratio exceeds the proportion of Boomers (Dokoupilová et al., 2024).

However, these claims do not apply everywhere, because there are geographical generational differences. Therefore, the field of research focusses specifically on the region of the European Union countries. A considerable amount of current research focuses on the adaptability of businesses in changing economic conditions. Companies respond to generational changes by investing in automation or employee retraining, which has long-term economic consequences on productivity and competitiveness (Acemoglu & Restrepo, 2018).

There are currently four generational cohorts in the labour market (baby boomers, Generation X, Generation Y, Generation Z). There is no clear definition of these generations in the literature, but their presence in the labour market is unquestionable and has a significant impact on their functioning and evolution (Guerrero *et al.,* 2021). The diversity of generations poses a challenge for many organisations as the generational experiences of employees influence their work tendencies. Factors such as technology, economic cycle, gender, education, and ethnicity also shape work attitudes. Recognising and identifying these generational differences and contextual differences is key for organisations to retain and motivate a sufficient workforce (Alaql *et al.,* 2023). These generational differences are also manifested in relation to employment preferences or preferences in the context of entrepreneurial activity or business development.

Generation Z is the currently emerging generation in the labor market, and several research studies are currently focusing on this generation. This generation is particularly characterised by a positive relationship with digital technologies, which is a key area in terms of labour market trends. However, there are still significant problems that this generation is experiencing. According to Grmanová (2022), the reluctance of young people to participate in the labour market while not even in the educational process (NEET) is a trend that is manifested across European countries. In the context of Generation Z, there are succession issues, especially in small and medium-sized family businesses. There is what is known as a generation gap, as differences in views, values, and working styles between the generations lead to frequent conflicts. This phenomenon is also referred to as the'second generation problem', as Generation X has established businesses which Generation Y has taken over and developed, but Generation Z does not show sufficient interest in continuing the entrepreneurship (Valencia & Pratama, 2024). Stevanovski et al. (2024) tried to clarify this disinterest of Generation Z, describing in their findings that this generation has unique values, motivations, and work styles, which requires a different approach in dealing with them by family business leaders, while Shirokova et al. (2024) also came to similar findings. From a business development perspective, it is also important to reach out to Generation Z as a family employee. Mura et al. (2021) examined the relationships between family and nonfamily employees, finding that non-family employees are more content, and activity focused, and family employees are more achievement orientated. As a result of these changes, the prevalence of businesses and their size structure are also shifting. Small and medium-sized enterprises (SMEs), which form the backbone of the European economy, are particularly sensitive to demographic trends, as their growth and survival are closely linked to the availability of labor and generational succession in family businesses (Ragolane, 2024). Many family businesses face the issue of succession, as younger generations show insufficient interest in continuing their operations, leading to their gradual decline or change in ownership (Rodriguez *et al.,* 2024).

These factors in the demographic composition of the population in the form of generational disparities have some impact on the labour market and sectoral labour demand. Quite a lot of recent research is concerned with the adaptability of enterprises to changing labour market conditions. These changing conditions are currently marked by current socio-political factors such as the war in Europe, the development of artificial intelligence, but also by generational change and the elements it brings with it. In terms of the different sectors of the labour market and employment in these sectors, it can be argued that the analysis of available jobs is meaningful and signals the current level of demand Lovaglio (2022). The impact of generational and demographic changes on job vacancies is evident, as the retirement of older generations and the entry of younger cohorts (e.g., Generation Z) into the labour market are changing the structure of jobs. One of the main consequences of generational differences is the transformation of the sectoral labor demand structure. While older generations were predominantly employed in the industrial and manufacturing sectors, younger generations (particularly Generation Z and younger Millennials) prefer the service sector, information technology, and flexible forms of employment (Mohammed, Alsomaidaee & Mahmood, 2024). A significant decline in interest in employment in traditional industrial sectors is particularly noticeable, leading to an increasing shortage of skilled labor in areas such as manufacturing, construction, and energy (Loungani, 2024).

At the level of enterprises and sectors, these processes affect job turnover and labour productivity. Companies are adapting to changes in demand and generations by investing in automation or retraining employees. With the development of automation and the introduction of smart industries and artificial intelligence, it will be important for demand to make retraining processes more accessible and better (Dusyant, 2024) so that these workers can fill available vacancies. These changes suggest that job vacancies should be considered as a key indicator of not only short-term but also long-term trends in the labour market and in the business sector.

As a result of the above-mentioned changes between generational disparities and sectoral labour market demand, which are currently highly actual, the research part will focus on clarifying these areas and identifying the impact of generational, respectively, demographic development on job vacancies according to sectoral labour market focus and changes in the number of enterprises depending on the size structure of the enterprise.

Methodology

Generational change represents one of the most significant demographic and socioeconomic trends of the current times. Although there are many studies on

demographic changes and the labor market, existing research primarily focuses on the macroeconomic impacts of population aging and less on sectoral disparities in labor demand and the prevalence of businesses by size (Clementi, 2024; Bonacini, Patriarca & Santoni, 2024). The aim of this study is to estimate the economic impacts of demographic changes driven by generational changes on the labour market and business environment in the selected European countries. Given the rapid ageing of the population in many European countries and the entry of new generations into the labour market, this topic is particularly current. The data sources used were demographic data (data on fertility, demographic trends, and population growth) and economic and labour data (data on the number of available and occupied jobs, employment structure, and business performance by sector) obtained from Eurostat and the OECD. To fulfil the defined goal, the above data sources were examined using trend analysis. Regression analysis and comparison of changes between selected European countries. The selection of these countries focusses mainly on the V4 countries (Czech Republic, Poland, Hungary, and Slovakia) and for the comparison other countries Germany and France were chosen as the countries with the largest economies in the EU and Italy as the country with the most negative demographic development.

The research questions on which the research will focus are as follows. RQ1: How do generational disparities affect sectoral demand? RQ2: How do generational disparities affect the number of entrepreneurs in the labour market?

The significance of these issues lies in the fact that existing research primarily focuses either on demographic changes at the macro level or structural trends in the labor market, with few studies analyzing the relationship between generational disparities, sectoral demand, and entrepreneurial activity in specific sectors (Loungani, 2024; Ragolane, 2024).

To clarify RQ1, the impacts of intergenerational changes were examined from the point of view of the structure of the labour force due to the decline in the intergenerational fertility rate. In addition, the number of job vacancies in the labour market sectors (wholesale and retail trade, hereafter W&R, industry, information and communication technology, hereafter - ICT, services, manufacturing, construction, accommodation and food services, administration) between 2013 and 2023 was compared to indicate the possible impact of Generation Z entering the labour market around this period.

Variations in the number of vacancies in the labour market are an important indicator that reflects the dynamics of labour demand but are often underestimated in economic analyses. Job vacancies not only signal the current level of demand, but also provide insight into future employment trends, since the occupation of these positions is associated with changes in firm output and technological innovations in hiring (Lovaglio, 2022). The last methodological step is to answer RQ2, which will be processed by regression analysis between demographic changes (population development - y) and its impact on the number of enterprises by size (micro, small, medium, and large enterprises - x). The definition of enterprise size follows from the general enterprise definitions in terms of the number of employees and based on the European Commission Recommendation 2003/361/EC - micro-enterprise (1 to 9 employees), small enterprise (10 to 49 employees), medium enterprise (50 to 249 employees), large enterprise (more than 250 employees). The variables examined in the regression analysis are compared between the selected EU countries. The prerequisite for the analysis was possible intergenerational differences in preferences and values between the labour force and the number of enterprises by size. This analysis allows for the quantification of the impact of generational changes on the entrepreneurial environment, providing empirical evidence for economic policies aimed at supporting entrepreneurship in changing demographic conditions (Bonacini *et al.,* 2024). The following hypotheses were established for the regression analysis:

H1: Changes in population development affect the number of enterprises at a statistically significant level.

H2: Changes in population development affect the size of companies in a statistically significant variable.

The hypotheses were tested through the results of the regression analysis and were evaluated and compared between the EU countries mentioned above. The p values were monitored and defined at a significance level of α = 5%. The time period of the data used in the analysis is from 1995 to 2020 (n=26). The chosen methodological approach allowed us to examine specific elements of the intergenerational differences in the context of their impact on enterprises located in the labour market by sector.

Result

Fertility rates around the world have changed significantly over the years. There are intergenerational fluctuations that lead to a decline in fertility with each generation. This problem is also commonly referred to as a western problem, but according to the graph below, as well as UN data (2024), the decline in fertility rates is a global problem. As can be seen, the countries with the lowest birth rates include a significant proportion of European countries, but particularly Italy, Spain, and Germany. In terms of Asian countries, China has the lowest birth rate in the region. Furthermore, there is a lower birth rate in the North American region and in almost the whole of South America. The exceptions are African countries and countries located in the Near and Middle East.

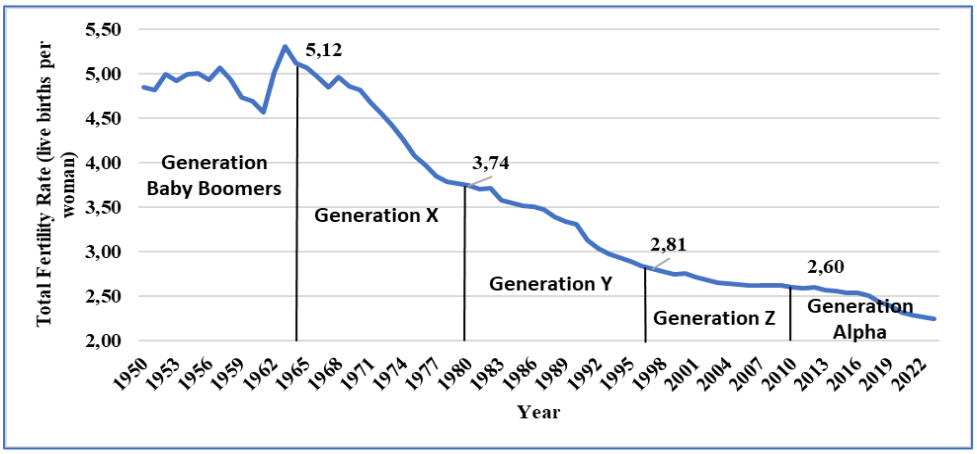

Figure 2. World Average Fertility Trends by Generational Cohorts

Although fertility rates are unequal around the world, the general view is that there is a global downward trend. The graph tracks the average fertility rate across the world along with the time of given generational cohorts. Thus, the graph shows that there is a more pronounced decline in the observed rates between each generation. Approximately 5 children per woman have been born since the early initial period during the creation of the Baby Boomers. In the period when the next generation appeared, there has been a significant global average fertility decline, which poses a risk of population decline in the future, especially for countries with older populations.

In addition to demographic changes, other factors affect the labour market, which are followed by Andabayeva et al. (2024) and Textor (2024). According to the authors, generative artificial intelligence is beginning to be used more and more, and it is estimated that developed countries will be much more affected by this trend than developing countries due to the nature of employment structures. However, labour market adaptation will be slower due to a shortage of workers with the necessary skills. Therefore, changes in the labour market will require a continuous expansion of knowledge and skills. Given that the structure of the labour market consists of the interaction of supply and demand, it will be necessary for both sides to adapt to each other's current trends and expectations and to find ways forward. As demographic changes occur in the context of generational changes and technological progress, forms of employment in key sectors (agriculture, industry, manufacturing, and services) are adapting to these trends.

Table 1

Changes in Available Vacancies (2013/2023)

Country/ Year		VO a MO	Industry	Manufacturing	Construction	Services	Accomm. And restaurants	ICT	Admin.
CZ	**2013**	31142	7008	6641	3595	20539	7966	815	7642
	2023	156969	58268	56626	22582	76119	40818	5027	26155
DE	**2013**	646706	87797	83463	58076	500833	212032	41176	228614
	2023	1346002	219405	200379	181232	945365	404815	69161	440846
FR	**2013**	136403	18483	17039	15948	101972	52005	13072	26850
	2023	534842	81692	76258	72466	380684	212316	40167	99619
PL	**2013**	36813	10691	10105	4621	21501	11831	3494	4170
	2023	91765	25618	23460	12957	53190	30522	7530	11849
SK	**2013**	6824	2224	1523	544	4056	2496	365	545
	2023	12300	4204	3313	757	7339	5320	447	850

The table shows the development of the number of vacant or unoccupied jobs in each sector between 2013 and 2023 in five selected European countries (Czech Republic, Germany, France, Poland and Slovakia). This time interval is chosen to highlight possible generational changes, because 2013 represents the approximate start of the entry of Generation Z and the significant increase of the Generation Y workforce in the labour market. The year 2023 allows us to track the ten-year trend in labour demand and its distribution across sectors. The largest decline in terms of jobs filled is observed in the wholesale and retail trade and industry sectors, and this decline has been consistent across most of the countries analysed. In terms of job vacancies, the most significant increase can be observed in the wholesale and retail trade, industry, and services sector, which may indicate labour shortages in these areas. It can be assumed that this shortage is related either to higher skill requirements or to unattractive working conditions in the sectors of younger generations. In

view of current trends, which are mainly in technological areas, a significant increase in vacancies in ICT can be observed, along with a slightly increasing share of the workforce in this area. In general, the differences between sectors may be linked to changes in intergenerational behaviour and expectations of both the labour market and the market for goods and services but may also be changes in technological progress or policy orientations.

From the point of view of the business environment itself, there have been changes in the last decades that have had a significant impact on it. Businesses look increasingly different in terms of their productivity, wages, and size. These changes are accompanied by trends such as stagnating real wages (especially for low-educated workers, which exacerbates the disparities in society), rising margins, declining share of GDP, and declining share of workers. These negative trends are caused by several factors, namely, technological change, the openness of countries' economies, or changing values on the part of both the workforce and firms adapting to current trends and policies. These facts lead to distortions in business demographics, causing the median of businesses to be distorted. This means that small firms are treated favourably by national governments because they are seen as key to economic development, and large firms are more easily able to adapt to these changes in terms of their capital. The problem arises with medium-sized (median) enterprises because they are not so well supported and do not have sufficient capital capabilities. The most serious problem, however, is stagnating productivity growth, which has been slower since the global financial crisis. Consequently, there has been some decline in the share of GDP (De Loecker *et al.*, 2024). This was followed by Manning and Petrongolo (2024), who looked at the decline in the labour share of GDP along with inequality in employment concentration.

The authors suggest that researchers and businesses alike are beginning to realise that the labour supply curve for an individual employer is not infinitely elastic. Gradually, employment concentration declines, and firms are forced to respond with changes in wages. For example, businesses creating demand for labour are forced to look outside their local area or industry for labour that is close to transferable skills. Giupponi and Machin (2024) argue that inequality and changes in the labour market focus mainly on technological change and changes in the demand for skills. It is precisely in connection with technological change that digital skills will be important, as they are an important factor in the socioeconomic development of society and the employability of the workforce. This implies that it is important for governments and employers, as representatives of labour market demand, to design, seek and implement new strategies to promote digital inclusion and training, not only for new ICT professionals, but also for the whole workforce (Bejakovic & Mrnjavac, 2020). Generational differences lead to negative trends in terms of the size of the workforce in almost all European countries. Therefore, the ICT sector can be considered increasingly important because it contributes to economic development (Bayar *et al.*, 2024) and a significant increase in the importance of this sector can be expected in the future. In general, countries' economic policies are formulated to increase output growth in the form of production of goods and services. The availability of resources is seen as relatively limited, but the need is seen as unlimited. In economic terms, good economic management is about making the most efficient use of scarce resources. It identifies land, labour, and capital as the basic inputs that must be economically and efficiently transformed into outputs that generate economic growth (Pramono *et al.*, 2021). Pramono's research further refers to McCain's theory from 2018, which argues the need for a process of supporting micro and small enterprises for the progress of countries' economies, as these enterprises are crucial for the labour market and the development of the economy in the view of the current demographic changes.

Table 2

Regression Relation between Enterprise Size and Population Changes in Selected EU Countries

		Intercept	Micro	Small	Medium	Large	All
Czech Republic	*Coefficients*	10483601	5.59257	-23.708	-273.17	237.224	5.462035
	t Stat	29.431444	6.19993	-0.9001	-2.2409	0.95899	4.937443
	p-values	1.477E-18	**3.8E-06**	0.37826	**0.03597**	0.34847	**4.87E-05**
Germany	*Coefficients*	82566956	-15.398	40.6684	-646.61	2281.01	-1.28552
	t Stat	10.918286	-1.3276	0.66153	-2.1978	1.92073	-0.11814
	P-value	4.072E-10	**0.19855**	0.51547	**0.03931**	0.06845	0.9069
France	*Coefficients*	73879626	13.0872	138.845	-1977.8	-1864.2	-102.609
	t Stat	22.477012	0.62032	0.65435	-3.5277	-0.8503	-7.71943
	P-value	3.588E-16	0.54172	0.51999	**0.002**	0.40474	**5.9E-08**
Italy	*Coefficients*	71419798	-21.767	35.5534	-2.0353	-4943.9	-16.4945
	t Stat	75.105742	-5.7667	1.03876	-0.0083	-5.629	-14.7549
	P-value	5.172E-27	**1E-05**	0.31073	0.99343	**1.4E-05**	**1.55E-13**
Hungary	*Coefficients*	8616342.9	23.2676	-114.84	996.092	-1846.2	1.465431
	t Stat	29.861641	4.19036	-2.1223	2.52501	-3.6962	0.651369
	P-value	1.097E-18	**0.00041**	**0.04587**	**0.01968**	**0.00134**	0.520997
Poland	*Coefficients*	37063852	5.25512	-40.444	13.7292	430.927	3.202941
	t Stat	55.032434	3.0253	-3.9644	0.19551	1.76521	1.491607
	P-value	3.434E-24	**0.00644**	**0.00071**	0.84687	0.09207	0.148831
Slovakia	*Coefficients*	5205021.7	0.81602	-16.878	177.017	117.663	0.710457
	t Stat	73.057529	7.6475	-2.0543	3.53135	1.045	7.929019
	P-value	9.223E-27	**1.7E-07**	**0.0526**	**0.00198**	0.3079	**3.69E-08**

The presented table shows the regression between population changes and their impact on the total number of companies in terms of their size. The coefficient of determination of the individual regression models explaining the variability of the dependent variable relative to the independent variables is 89 %. The classification of enterprises is as follows: (1) micro enterprise - 0 to 9 employees; (2) small enterprise - 10 to 49 employees; (3) medium enterprise - 50 to 249 employees; (4) large enterprise 250 and more employees. The time span in the regression analysis includes n-26 observations covering the period from 1995 to 2020.

Based on the result of the regression analysis, we can accept H1: Changes in population affect the size of enterprises in the statistically significant variable. These changes manifest themselves in all the countries under study but depending on the type of enterprise size. The regression relationship shows that micro and medium-sized companies are the most affected. In all countries except Germany and France, there is a relationship between changes in population and the number of micro-enterprises. Except for Italy, this relationship is expressed by a positive coefficient. This may indicate that micro-enterprises are able to respond more flexibly to population changes. As for medium and large enterprises, especially in countries such as the Czech Republic, Germany, France, Hungary, and Italy, the regression relationship in point of view of negative coefficients indicates a more difficult adjustment to population or demographic trends. These companies may be less flexible than smaller enterprises in adapting workplace structures, which is an important factor in the context of intergenerational change.

In addition, the increase in micro and small enterprises in conjunction with generational development may indicate a positive attitude toward entrepreneurial activity among younger generations (Z and Y). In the entrepreneurial environment, it is these generations that can reconcile and build economic trust with each other, despite the different socioeconomic backgrounds and different entrepreneurial attitudes that prevail among these cohorts. The opposite of this relationship is the cohesion of Generation X, which is the result of significant generational differences in the values and expectations of the business environment. State institutions are aware of the need for new entrepreneurs and their potential for economic growth, even in the context of generational differences, and for this reason various so-called incubators are being created to support innovative business ideas.

Hypothesis H2 is confirmed only in some of the countries listed in Table 2. Changes in population trends have an impact at a statistically significant level in some countries. The overall effect of population change on the size of all enterprises was found to be significant at the statistical level for a few countries, namely the Czech Republic, France, Italy, and Slovakia. This impact may be related to the faster response of companies to changes caused by demographic developments. In the case of Poland, Hungary, and Germany, H2 does not show statistical significance, and we reject it. The reason for not proving it may be the better efficiency of work of the existing businesses or the more difficult access to the labour market for new businesses.

Discussion

Current labor market dynamics are significantly influenced by the ongoing intergenerational transition, which, in combination with technological advancements and demographic trends, is reshaping employment patterns. The impact of demographic changes resulting from generational shifts is particularly pronounced due to the simultaneous aging of the population and the rise of automation. Many authors have examined changes in population employment and job vacancies. We were intrigued by the results of Lovaglio (2022), who examined the relationships within Italy, concluding that the fastest adjustment to disequilibrium is observed in the construction sector, while the information and communication technology sectors show the strongest long-term relationships between variations. Our investigations of the labour market in terms of intergenerational exchange and the interest of Generation Z in vacancies show that the most significant increase in vacancies is in the wholesale and retail sector in all countries compared. Other sectors for which an increase in vacancies can be observed are services, industry, administration and accommodation and catering, depending on the country compared. Regarding differences in the ICT sector, a slight increase in job vacancies can be observed, with more pronounced increases in Germany and France. Comparing our findings with those of Lovagio (2022), we note that regional labour markets may exhibit different trends, which will depend mainly on the sectoral share of gross domestic product It is important to know the factors attracting and retaining employees, which influence and persuade them to choose a job. Given the generational differences, it is important to consider these factors for each generation that an employer is looking to recruit for a given job. In addition, Hitka et al. (2021) states that management should consider the needs of employees with respect to the size of the company as well as the country of origin.

In terms of the number of businesses, demographic shifts are reflected in a gradual decline in new business start-ups and significant changes in the relationship between generations, with the results of our regression analysis showing a reduced interest in entrepreneurial activity among younger generations compared to previous generations. Arkorful et al. (2022) research found that the relationship with entrepreneurship and business start-ups is particularly strong among Boomers and Generation Z.

This relationship was not evident in Generations X and Y. However, the strongest relationship is found in the context of boomers. In the context of entrepreneurial development in post-socialist countries, Generation X played a crucial role in shaping the business environment following the regime change. Their entrepreneurial activity was strongly influenced by economic reforms and new market opportunities that were unavailable to previous generations (Arkorful et al., 2022). The reduced interest in entrepreneurship of younger generations is related to the opportunities for education and travel that the previous generation did not have, as well as to the openness of the economy and the opportunities offered to them. As employees, they feel more secure, and their earnings in specialist positions can be the same or higher than in the

business sector. At the same time, they try to have a balance of time to dedicate to work and family or to their hobbies. The findings of the authors support the conclusions of our research that population development or generational changes lead to changes in labour market demand. In terms of generational development, this implies that the trend for new business start-ups is decreasing across generations, which may have an impact on the extent of labour demand.

These changes are also influenced by technological developments, which both bring about the disappearance of traditional jobs, but also create new job opportunities that emphasise technological and creative skills, as well as the ability to adapt to rapidly changing conditions (Ziolkowska, 2021). We can only agree with the author because even according to our findings we cannot define exactly what new jobs will be created. Over the past few years, AI has played an increasing role in various work spheres, affecting many jobs. The EU measures that will come into force soon aim to regulate the use of AI, particularly in HR processes. It is a matter for further investigation how these measures will affect job roles and their requirements.

From the findings of authors Arkorful et al. (2022) and Hopenhayn (2022) on generational differences show that although new businesses continue to emerge in response to technological trends and new demands from consumers, most businesses, and especially the most significant ones, have emerged at a much later age. These businesses were founded by members of the Baby Boom and Generation X generations, which seems problematic due to the comparison in numbers with younger generations. Therefore, there are adverse population changes, mainly related to labour shortages, both in terms of quantity and quality. Therefore, these generational differences affect not only the labour market, but also the overall economic development of countries. Brida et al. (2024) examined the relationship between macroeconomic data in conjunction with population changes. That study concluded that population development or generational differences affect the development of GDP and other indicators associated with economic growth of countries. One potential solution to labor shortages is accelerating the adoption of smart industry and automation, which could alleviate pressure on specific labor market sectors. Consequently, labor market strategies must account for the synergy between technological solutions and labor migration, with each country determining an optimal balance based on the structure of its economy.

Intergenerational shifts influence the entrepreneurial attitudes of different cohorts. Compared to previous generations, younger generations exhibit distinct expectations and preferences regarding entrepreneurship, potentially altering the dynamics of new business creation (Rakićević et al., 2022). For micro and small enterprises, which represent the initial enterprises at the start of entrepreneurial activity, there is a negative coefficient in the results of the regression analysis in relation to demographic changes. To reverse this trend, it is important that the current younger generations become more interested in entrepreneurial activity. In the case of Generation Z, which is entering the labour market and at the same time part of the generation is studying, one of the important factors to start entrepreneurial activity is to develop interest in it already during studies (Rakićević et. al., 2022). Education and professional training play a crucial role to develop entrepreneurial skills. Educational institutions have a significant role in shaping entrepreneurial identity as they develop key knowledge, skills, and competencies needed for successful entrepreneurship through education (Chaurasia, 2023). Universities offer students the necessary knowledge base that positively influences their entrepreneurial aspirations. Furthermore, the social environment and support play a key role in motivating students to enter the entrepreneurial environment (Li *et al.*, 2022). On the importance of youth, respectively, Generation Z development, they argue that it is the youth who are the basic entrepreneurial force for the social, political and economic development of any country. Babel et al. (2021) identify that perceived business performance and quality are closely related to profitability, with different generations approaching these aspects differently. We conclude, in line with the cited author, that detailed research in terms of qualitative and quantitative aspects around the interest of younger generations could be useful and beneficial. Current demographic trends suggest a decline in the number of business entities in some EU countries, closely linked to unfavorable demographic developments. While this trend is expected to continue, its intensity will depend on factors such as economic policy, entrepreneurial support, and the ability of younger generations to adapt to an evolving business environment (Brida et al., 2024). The problem of succession in companies is one of the serious problems of the current labour market. Given these circumstances, it is important to promote entrepreneurial and innovative skills among younger generations, not only at the level of formal education but also through approaches that would strengthen their participation in entrepreneurial activities already during their studies. This will ensure that generational change contributes to the sustainable development of an economy where every sector is prepared to face the challenges posed by demographic and technological change.

Conclusion

Today's labour market is dynamically changing under the influence of various global factors that bring new challenges and opportunities. At the global level, the most important factors include the openness of economies, increased migration, technological progress, and socioeconomic trends. At the same time, these factors have a significant impact on working conditions, employment patterns, and labour market expectations. The service sector is becoming dominant, which is related to changes in consumer preferences, globalisation, and increasing digitalisation (Liao, 2020). One of the main points of discussion is the flexibilization of working conditions, which affects traditional forms of employment. This trend is reflected in the growth of short-term contracts, seasonal work, temporary positions, and freelance forms of work, which is particularly pronounced in the IT and creative industries. On the one hand, flexibility allows employees to have a better work-life balance and encourages the development of new skills. On the other hand, it brings

insecurity in terms of stable income and access to social benefits such as health insurance or pensions. Technological advances, in particular the development of digital platforms and artificial intelligence, are fundamentally changing the way work is performed and organised (Dauvergne, 2022; Vasilescu *et al.*, 2020). These changes also influence sectoral labor demand, with industries requiring higher levels of digital skills experiencing a significantly greater increase in labor demand compared to traditional sectors such as manufacturing and construction. Work on platforms such as Uber, Upwork, or Fiverr often breaks out of traditional labour relations and creates new forms of 'gig' economy where labour contracts are not fixed. In this context, it is important to emphasize that while this study does not directly differentiate between generational cohorts at the individual level, sectoral shifts in labor demand may be indirectly influenced by generational preferences. This suggests that economic dynamics in entrepreneurship and employment are linked to structural generational changes.

The discussion between economists and social scientists here includes questions about workers' rights, their protection, and the long-term impact on the economies of the countries where these platforms dominate. Smart industry and automation are changing the need for skills in the labour market, leading to changes throughout society. With the rapid development of artificial intelligence and automation, new technical skills are now critically needed, especially in areas such as data science, big data analytics, and programming. This trend may increase the inequalities between those with technical skills and adaptability and those who lack such skills. Our analysis has highlighted those sectoral disparities in labor demand serve as one of the indicators of the ongoing generational transition, with certain sectors experiencing higher turnover rates and a shortage of skilled workers. It becomes strategically advantageous for businesses to invest in retraining employees to maintain a competitive advantage (Lorenz et al., 2024). The challenge here remains whether employees will be able to acquire the new skills at the speed at which the market is evolving. The generational collision between different age groups of workers adds another layer of complexity. Older generations, who have been used to stable jobs with long-term working relationships, often find the transition to a more flexible labour market more difficult to cope with. In contrast, younger generations are used to flexibility and openness, but face challenges in the form of job insecurity and less job stability. This difference raises questions about the establishment of education systems and the development of career guidance to prepare young people for a labour market that requires rapid adaptation.

The results of our regression analysis indicate that demographic changes can have a significant impact on the business environment, with micro and small enterprises being the most affected segments. Demographic changes, including the exit of baby boomers and some Generation X from the labour market, are increasing the pressure to replenish the workforce. One option is the intake of migrants, which, however, brings certain social problems in Europe and does not always achieve the desired effects. This opens a debate on how migration is approached, how the integration of migrants into the labour market is ensured, and what measures are needed to address the emerging social challenges. The second option is to increase the pace of implementation of smart industry and automation, which can alleviate labour shortages in some sectors (Acemoglu & Restrepo, 2022). However, the faster adoption of technology means that more small and medium-sized enterprises will emerge, which will have different skill requirements for employees and may increase demands on their adaptability. Therefore, it will be crucial for both employers and employees to ensure that the workforce has the necessary knowledge and skills required to implement smart industries (Li L., 2022). These findings underscore the importance of analyzing sectoral differences in labor demand and the business environment, even though our data do not allow for a direct comparison of individual generational cohorts.

From our findings, we consider that there is a research gap in the degree to which the smart industry can be considered as a solution to demographic challenges. Given that the authors who discuss this topic use quantitative statistical methods and essentially state the findings. However, there is a need to examine socio-economic processes and their impact in relation to, for example, people's motivation to work, to be educated, to enter partnerships and to have children. All these factors will have a significant impact on the labour market.

Future research could focus on an in-depth examination of the specific characteristics and disparities of each generation participating in labor demand and how these characteristics influence sectoral changes in business.

In conclusion, the labour market is globalising and diversifying in new and complicated. Interconnectedness with other economies brings challenges in managing migration, technology, and innovation. States and international organisations must work together to find solutions that enable not only economic growth but also social stability and decent working conditions for workers of all ages and skills.

Acknowledgements

This publication was funded by the Alexander Dubček University of Trenčín and the Internal Grant Scheme within the Project: „Changes in the value orientation of employees under the influence of generational change“, code of the project D14_2024.

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

References

Acemoglu, D., & Restrepo, P. (2022). Demographics and Automation. *The Review of Economic Studies*, *89*(1), 1–44. https://doi.org/10.1093/restud/rdab031

Acemoglu, D., & Restrepo, P. (2018). The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment. *American Economic Review*, *108*(6), 1488–1542. https://doi.org/10.1257/aer.20160696

Acheampong, N. A. A. (2021). Reward Preferences of the Youngest Generation: Attracting, Recruiting, and Retaining Generation Z into Public Sector Organizations. Compensation & Benefits Review, 53(2), 75–97. https://doi.org/10.1177/ 0886368720954803

Alaql, A. A., Alqurashi, F., & Mehmood, R. (2023). Multi-generational labour markets: Data-driven discovery of multi-perspective system parameters using machine learning. *Science Progress*, *106*(4), 00368504231213788. https://doi.org/10.1177/00368504231213788

Andabayeva, G., Movchun, V., Dubovik, M., Kurpebayeva, G., & Cai, X. (2024). Labor market dynamics in developing countries: Analysis of employment transformation at the macro-level. *Journal of Innovation and Entrepreneurship*, *13*(1), 65. https://doi.org/10.1186/s13731-024-00417-0

Arkorful, H., Hilton, S. K., & Awaah, F. (2022). Generational cohorts and their predisposition toward entrepreneurship in an emerging economy. *Journal of Economic and Administrative Sciences*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JEAS-09-2021-0194

Babeľova, Z. G., & Starecek, A. (2021). Evaluation of industrial enterprises' performance by different generations of employees. *Entrepreneurship and Sustainability Issues*, *9*(2), 346–362. https://doi.org/10.9770/jesi.2021.9.2(23)

Barhate, B., & Dirani, K. M. (2022). Career aspirations of generation Z: A systematic literature review. *European Journal of Training and Development*, *46*(1/2), 139–157. https://doi.org/10.1108/EJTD-07-2020-0124

Bayar, Y., Yelkesen, O., Barry, A. B., & Gavriletea, M. D. (2024). Impact of Information and Communication Technologies Penetration on Human Development: Evidence from Economic Community of West African States. *Engineering Economics*, *35*(4), Article 4. https://doi.org/10.5755/j01.ee.35.4.30888

Bejakovic, P., & Mrnjavac, Z. (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

Bonacini, L., Patriarca, F., & Santoni, E. (2024). Background wage premia, beyond education: Firm sorting and unobserved abilities. *GLO Discussion Paper Series*, Article 1459. https://ideas.repec.org//p/zbw/glodps/1459.html

Bordian, M., Gil-Saura, I., & Šerić, M. (2022). The impact of value co-creation in sustainable services: Understanding generational differences. Journal of Services Marketing, 37(2), 155–167. https://doi.org/10.1108/JSM-06-2021-0234

Brida, J. G., Alvarez, E., Cayssials, G., & Mednik, M. (2024). How does population growth affect economic growth and vice versa? An empirical analysis. *Review of Economics and Political Science*, *9*(3), 265–297. https://doi.org/10.1108/REPS-11-2022-0093

Chatterjee, S., Chaudhuri, R., Vrontis, D., & Thrassou, A. (2022). SME entrepreneurship and digitalization – the potentialities and moderating role of demographic factors. *Technological Forecasting and Social Change*, *179*, 121648. https://doi.org/10.1016/j.techfore.2022.121648

Chaurasia, S. (2023). Skills for Entrepreneurs. In N. Amaresan, D. Dharumadurai, & O. O. Babalola (Eds.), *Agricultural Microbiology Based Entrepreneurship: Making Money from Microbes* (pp. 41–61). Springer Nature. https://doi.org/10.1007/978-981-19-5747-5_3

Clementi, F. (2024). Income Distribution, Inequality and Poverty: Evidence, Explanations and Policies. *Economies*, *12*(10), 276. https://doi.org/10.3390/economies12100276

Dauvergne, P. (2022). Is artificial intelligence greening global supply chains? Exposing the political economy of environmental costs. *Review of International Political Economy*, *29*(3), 696–718. https://doi.org/10.1080/ 09692290.2020.1814381

De Loecker, J., Obermeier, T., & Van Reenen, J. (2024). Firms and inequality. *Oxford Open Economics*, *3*(Supplement_1), i962–i982. https://doi.org/10.1093/ooec/odad097

Dokoupilová, L., Cogiel, A., & Fero, M. (2024). Values as motivating factors for representatives of generation Z in the Czech Republic and Slovakia within the European context. *Frontiers in Psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1404354

Dougherty, S., Biase, P. de, & Lorenzoni, L. (2022). *Funding the future: The impact of population ageing on revenues across levels of government*. OECD. https://doi.org/10.1787/2b0f063e-en

Dusyant, D. (2024). The Impact of Artificial Intelligence on Workforce Dynamics: Opportunities and Challenges. *Scholar' Digest*, *1*(1), Article 1.

Eger, L., Komarkova, L., & Egerova, D. (2023). Employees ICT Self-Efficacy and Uncertainty in the Context of Digital Transformation: Perspective of Three Generational Cohorts. *Transformations in Business and Economics*, *22*, 888–908.

Egerova, D., Komarkova, L., & Kutlak, 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

Eurostat. (2024). *Job vacancy statistics* [Dataset]. Eurostat. https://doi.org/10.2908/JVS_Q_NACE2

Eurostat. (2022). Manufacturing, subsections DA-DE and total (NACE Rev. 1.1, D) by employment size class (1995-2001) [Dataset]. Eurostat. https://doi.org/10.2908/SBS_SC_2D_DADE95

Eurostat. (2024). Industry by employment size class (NACE Rev. 2, B-E) (2005-2020). https://ec.europa.eu/eurostat/databrowser/view/sbs_sc_ind_r2/default/table?lang=en&category=bsd.sbs.sbs_h.sbs_ind_co_h.sbs_sc_ind; https://doi.org/10.2908/sbs_sc_ind_r2

Giupponi, G., & Machin, S. (2024). Labour market inequality. *Oxford Open Economics*, *3*(Supplement_1), i884–i905. https://doi.org/10.1093/ooec/odad039

Gray, S. G., Raimi, K. T., Wilson, R., & Arvai, J. (2019). Will Millennials save the world? The effect of age and generational differences on environmental concern. *Journal of Environmental Management*, *242*, 394–402. https://doi.org/10.1016/j.jenvman.2019.04.071

Grmanova, E., & Bartek, J. (2022). Factors affecting the working life lenght of older people in the European Union. *Entrepreneurship and Sustainability Issues*, *10*(1), 64–79. https://doi.org/10.9770/jesi.2022.10.1(3)

Guerrero, M., Amoros, J. E., & Urbano, D. (2021). Do employees' generational cohorts influence corporate venturing? A multilevel analysis. *Small Business Economics*, *57*(1), 47–74. https://doi.org/10.1007/s11187-019-00304-z

Hitka, M., Schmidtova, J., Lorincova, S., Starchon, P., Weberova, D., & Kampf, R. (2021). Sustainability of Human Resource Management Processes through Employee Motivation and Job Satisfaction. *Acta Polytechnica Hungarica*, *18*(2), 7–26. https://doi.org/10.12700/APH.18.2.2021.2.1

Holzer J., H. (2022). *Understanding the impact of automation on workers, jobs, and wages*. Brookings. Retrieved November 14, 2024, from https://www.brookings.edu/articles/understanding-the-impact-of-automation-on-workers-jobs-and-wages/

Hopenhayn, H., Neira, J., & Singhania, R. (2022). From Population Growth to Firm Demographics: Implications for Concentration, Entrepreneurship and the Labor Share. *Econometrica*, *90*(4), 1879–1914. https://doi.org/10.3982/ECTA18012

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

Hu, Q., Lei, X., & Zhao, B. (2021). Demographic changes and economic growth: Impact and mechanisms. China Economic Journal, 14(3), 223–242. https://doi.org/10.1080/17538963.2020.1865647

Kotler, P., Keller, K. L., Brady, M., Goodman, M., & Hansen, T. (2019). Marketing Management. Pearson Education. https://research.cbs.dk/en/publications/marketing-management-4

Li, L. (2022). Reskilling and Upskilling the Future-ready Workforce for Industry 4.0 and Beyond. *Information Systems Frontiers*. https://doi.org/10.1007/s10796-022-10308-y

Li, Y. Y., Wang, R. X., & Chi, C. Y. (2022). Who is more likely to start a business? Analysis of the factors influencing undergraduates' entrepreneurial intentions. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.829955

Liao, J. (2020). The rise of the service sector in China. *China Economic Review*, *59*, 101385. https://doi.org/10.1016/j.chieco.2019.101385

Lorenz, P., Perset, K., & Berryhill, J. (2024). *Collective action for responsible AI in health* (OECD Artificial Intelligence Papers 10; OECD Artificial Intelligence Papers, Vol. 10). https://doi.org/10.1787/f2050177-en

Lovaglio, P. G. (2022). Do job vacancies variations anticipate employment variations by sector? Some preliminary evidence from Italy. *LABOUR*, *36*(1), 71–93. https://doi.org/10.1111/labr.12213

Loungani, P. (2024). *Walkways, Not Walls*. IMF. https://www.imf.org/en/Publications/fandd/issues/2024/12/walkways-not-walls-prakash-loungani

Ma, K., & Fang, B. (2024). Exploring Generation Z's expectations at future work: The impact of digital technology on job searching. *European Journal of Training and Development*, *48*(9), 933–953. https://doi.org/10.1108/EJTD-05-2023-0076

Mahmoud, A. B. (2024). Aging in the Digital Age: Public Beliefs About the Potential of Virtual Reality (VR) for the Aging Population. *Journal of Macromarketing*, 02761467241253286. https://doi.org/10.1177/02761467241253286

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

Mohammed, D. T., Alsomaidaee, M. M., & Mahmood, A. A. (2024). Factors Associated with Employees' Intention to Leave in ICT Sector in Iraq: A Factor Analysis. *American Journal of Economics and Business Innovation*, *3*(2), 164–172. https://doi.org/10.54536/ajebi.v3i2.3119

Mura, L., Hajduova, Z., Smorada, M., & Jakubova, Z. (2021). Employee motivation and job satisfaction in family-owned businesses. *Problems and Perspectives in Management*, *19*(4), 495–507. https://doi.org/10.21511/ppm.19(4).2021.40

Nagarajan, N. R., Teixeira, A. A. C., & Silva, S. T. (2021). Ageing Population: Identifying the Determinants of Ageing in the Least Developed Countries. *Population Research and Policy Review*, *40*(2), 187–210. https://doi.org/10.1007/s11113-020-09571-1

Nwobodo, S., & Weissmann, M. A. (2024). Common traits in online shopping behavior: A study of different generational cohorts. Global Business and Organizational Excellence, 43(3), 46–60. https://doi.org/10.1002/joe.22236

Pandita, D. (2021). Innovation in talent management practices: Creating an innovative employer branding strategy to attract generation Z. International Journal of Innovation Science, 14(3/4), 556–569. https://doi.org/10.1108/IJIS-10-2020-0217

Poláková & Klímová. (2019). Mobile Technology and Generation Z in the English Language Classroom – A Preliminary Study. *Education Sciences*, *9*(3), 203. https://doi.org/10.3390/educsci9030203

Pramono, R., Sondakh, L. W., Bernarto, I., Juliana, J., & Purwanto, A. (2021). Determinants of the Small and Medium Enterprises Progress: A Case Study of SME Entrepreneurs in Manado, Indonesia. *The Journal of Asian Finance, Economics and Business*, *8*(1), 881–889. https://doi.org/10.13106/jafeb.2021.vol8.no1.881

Rakicevic, Z., Rakicevic, J., Labrovic, J. A., & Ljamic-Ivanovic, B. (2022). How Entrepreneurial Education and Environment Affect Entrepreneurial Readiness of STEM and Business Students? A Longitudinal Study. *Engineering Economics*, *33*(4), Article 4. https://doi.org/10.5755/j01.ee.33.4.30244

Ragolane. (2024). (PDF) Micro, Small and Medium Enterprises Promoting Sustainable Livelihoods Within the South African Context. *ResearchGate*. https://doi.org/10.19184/idj.v5i1.43477

Renteria, E., Souto, G., Istenic, 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

Rodriguez, J. K., Guenther, E. A., Nkomo, S., & Mandiola, M. (2024). Editorial: Intersectional inequalities in work and employment: advances, challenges and renewed possibilities. *Frontiers in Sociology*, *9*, 1441849. https://doi.org/10.3389/fsoc.2024.1441849

Rouzet, D. (2019, September 11). *Is age just a number? Meeting the economic challenges of a graying world*. ECOSCOPE. https://oecdecoscope.blog/2019/09/11/is-age-just-a-number-meeting-the-economic-challenges-of-a-graying-world/

Rueff-Lopes, R., Velasco, F., Sayeras, J., & Junça-Silva, A. (2024). Understanding turnover of generation Y early-career workers: The influence of values and field of study. Personnel Review, ahead-of-print(ahead-of-print). https://doi.org/10.1108/PR-10-2023-0918

Sakdiyakorn, M., & Wattanacharoensil, W. (2018). Generational Diversity in the Workplace: A Systematic Review in the Hospitality Context. *Cornell Hospitality Quarterly*, *59*(2), 135–159. https://doi.org/10.1177/1938965517730312

Sestakova, M. (2023). Interactions between the Oldest and the Youngest Age Groups in the Current Multigenerational Organizations: The Case of Slovakia. In *Intergenerational Relations—Contemporary Theories, Studies and Policies*. IntechOpen. https://doi.org/10.5772/intechopen.1003245

Shirokova, G., Bodolica, V., Morozov, J., & Mikhailova, T. (2024). Family business exposure and succession intention: The role of entrepreneurial self-efficacy and business performance. *Journal of Small Business & Entrepreneurship*, 1–30. https://doi.org/10.1080/08276331.2024.2421683

Silva, I., Dias, A., & Pereira, L. F. (2023). Determinants of employee intention to stay: A generational multigroup analysis. International Journal of Organizational Analysis, 32(8), 1389–1418. https://doi.org/10.1108/IJOA-06-2023-3796

So Hee, L., & Yeojin, Y. (2024). Work values and communication styles among Generation X, Y, and Z nurses: A cross sectional study. *International Nursing Review*, *71*(1), 115–121. https://doi.org/10.1111/inr.12863

Spitznagel, E. (2020, January 25). *Generation Z is bigger than millennials — and they're out to change the world*. https://nypost.com/2020/01/25/generation-z-is-bigger-than-millennials-and-theyre-out-to-change-the-world/

Stevanovski, M., Zhan, L. (David), & Mustafa, M. (2024). Managing a Gen-Z workforce – what family firms need to know: A perspectives article. *Journal of Family Business Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JFBM-10-2023-0231

Su, C. W., Yuan, X., Umar, M., & Lobont, O. R. (2022). Does technological innovation bring destruction or creation to the labor market? *Technology in Society*, *68*, 101905. https://doi.org/10.1016/j.techsoc.2022.101905

Suomaki, A., Kianto, A., & Vanhala, M. (2019). Work engagement across different generations in Finland: A Qualitative Study of Boomers, Yers and Xers. *Knowledge and Process Management*, *26*(2), 140–151. https://doi.org/10.1002/kpm.1604

Thangavel, P., Pathak, P., & Chandra, B. (2021). Millennials and Generation Z: A generational cohort analysis of Indian consumers. Benchmarking: An International Journal, 28(7), 2157–2177. https://doi.org/10.1108/BIJ-01-2020-0050

Textor, C. (2024). *China: Employment rate 2023*. Statista. https://www.statista.com/statistics/239153/employment-rate-in-china/

UN. (2024). *World Population Prospects 2024—Population Division—United Nations (The 2024 Revision of World Population Prospects)*. https://population.un.org/wpp/

Valencia, Z., & Pratama, A. P. (2024). Proposed Succession Planning for Next-Generation Family Business. *International Journal of Current Science Research and Review*. https://doi.org/10.47191/ijcsrr/V7-i1-49

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

Xiang, Z., Zhang, X., Li, Y., Li, J., Wang, Y., Wang, Y., Ming, W.-K., Sun, X., Jiang, B., Zhai, G., Wu, Y., & Wu, J. (2023). Fertility intention and its affecting factors in China: A national cross-sectional survey. *Heliyon*, *9*(2). https://doi.org/10.1016/j.heliyon.2023.e13445

Ziólkowska, M. J. (2021). Digital Transformation and Marketing Activities in Small and Medium-Sized Enterprises. *Sustainability*, *13*(5), Article 5. https://doi.org/10.3390/su13052512

Authors' Biographies

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 its changes, as well as personnel management in the context of changes in the labour market across generations. ORCID ID: 0009-0007-8056-2538

Adriana Grenčíková is an Associate Professor at the Department of Personnel Management and Human Resources Management, Faculty of Social and Economic Relations at the Alexander Dubček University of Trenčín, Slovakia. Fields of scientific interest: Human resource management, personnel management, labour market issues. ORCID 0000-0003-1077-1127

Karol Krajčo is a researcher at the Faculty of Social and Economic Relations, A. Dubček University of Trenčín. His work focuses on economic policy, labour market, human resources management, and economics of small and medium-sized enterprises. ORCID ID: 0000-0002-7698-6078

Valentinas Navickas is a Professor of Economics. His fields of scientific interest are international economics, clusterization, competitiveness, economic growth, and corporate social responsibility. ORCID ID: ORCID ID: 0000-0002-7210-4410

Vytautas Snieska is a Professor at the Economics, Business & Management Centre, School of Economics and Business, Kaunas University of Technology, Lithuania. Fields of scientific interest: international economics, macroeconomic modelling, business forecasting. ORCID ID: 0000-0001-8777-273X

The article has been reviewed.
Received in December 2024; accepted in February 2025.