The Rise or Decline of Craft Trades? Evidence from Czech Republic and Poland

Vzestup nebo ústup řemeslných oborů? Přehled z České republiky a Polska

ANDREA TOMÁŠKOVÁ
ROMAN ŚMIETAŃSKI

Abstract

Entrepreneurial activity in the field of craft professions is an integral part of national economies. The aim of the authors is to prepare an overview article, which would simultaneously compare selected business activities in the Czech Republic and Poland in the field of craft trades with an emphasis on young people and their employability in the labour market. In line with the aim of the article, the authors identified four research questions, which they answered based on the analysis of secondary data. They drew data from databases of statistical offices, ministries and associations. Data were processed using a descriptive statistics apparatus. In the Czech Republic, interest in the study of crafts has stagnated for a long time. In recent years, the number of graduates of craft apprenticeships has been growing. Crafts in the field of mechanical and electrical engineering are preferred, e.g. car mechanic, repairman, mechanical locksmith, electrician. Decrease in the number of graduates is recorded in the food and most construction professions. After finishing the apprenticeship, graduates often leave their field. In Poland, most companies operate in the field of trade and repair of motor vehicles. Measured by the number of graduates, the predominant field is the machinery industry, wellness professions and professions in the food industry. The interest among young people in the studied craft trades is declining in most fields, the field of metal machining shows a growing trend. It is also necessary to confirm the craftsman's expertise with a master craftsman's certification. It is desirable to expand the possibilities of educating pupils and students in a real work environment. It is important that mutual communication between the worlds of practice and education is functional and effective.

Keywords

graduate, Czech Republic, Poland, craft trade, crafts

JEL Codes

I29, J24, J29, J40

DOI

http://dx.doi.org/10.37355/acta-2021/2-01

Abstrakt

Podnikatelská činnost v oblasti řemeslných profesí je nedílnou součástí ekonomik států. Cílem autorů je zpracovat přehledový článek, který by současně porovnával vybrané podnikatelské aktivity v ČR a Polsku v oblasti řemeslných oborů s akcentem na mladé lidi a jejich uplatnitelnost na trhu práce. V souladu s cílem článku autoři stanovili čtyři

výzkumné otázky, na které odpověděli na základě analýzy sekundárních dat. Údaje čerpali z databází statistických úřadů, ministerstev a asociací. Data byla zpracována pomocí aparátu deskriptivní statistky. V České republice zájem o studium řemeslných dlouhodobě stagnoval. V posledních letech roste počet absolventů učňovských řemeslných oborů. Preferována jsou řemesla z oboru strojírenství a elektrotechniky, např. automechanik, opravář, strojní zámečník, elektrikář. Poklesy počtů absolventů jsou zaznamenány u potravinářských a většiny stavebních profesí. Po vyučení se absolventi svému oboru často nevěnují. V Polsku je většina podniků v oblasti obchodu a oprav motorových vozidel. Dle absolventů převažují obory v oblasti strojního průmyslu, wellness profese a potravinářské profese. Zájem mezi mladými lidmi o studované řemeslné obory je u většiny oborů klesající, rostoucí trend vykazuje obor obrábění kovů. Potřebné je také potvrzení odbornosti řemeslníka mistrovskou zkouškou. Je žádoucí rozšiřovat možnosti vzdělávání žáků a studentů v reálném pracovním prostředí. Důležité je, aby oboustranná komunikace mezi sférou praxe a sférou vzdělávání byla funkční a efektivní.

Klíčová slova
absolvent, Česká republika, Polsko, řemeslný obor, řemesla

Introduction

Trade business is the most widespread form of business. Its regime applies to most business activities (Průcha, Pomahač, 2002, p. 640). It is an integral part of everyday life in society. Development of business leads to greater prosperity, reduced unemployment, development of the business environment and competition.

Secondary vocational schools in the Czech Republic have long struggled with the lack of interest of young people in studying a craft trade. Although there is a growing tendency of interest in studies, many fields still lack craftsmen across all disciplines. Crafts preserve long-standing traditions, but also bring promising activities in terms of choosing a profession. Nevertheless, students have shown little interest in crafts studies in recent years, which is causing a shortage of craftsmen in the labour market. Craft activities are a key segment of the economy. The trade crafts significantly contribute to all issued trade licenses and craft services are the basis of urban and rural service. The development of industrial craft is in turn a necessary prerequisite for maintaining industrial and construction production (AMSP, 2020b). Interest in studying most apprenticeships has been declining since the 1990s and has been minimal. To some extent, the preconceptions of parents, who did not believe that their offspring would find a job with an apprenticeship certificate, played a role. Although interest in crafts is growing, it is far from sufficient to cover the needs of the market. Even if the situation improves immediately, there will be a generational deficit. The current composition of apprentice youth proves that the prestige of craftsmen is declining. Crafts are mainly studied by children with poor school results, often failing and with educational problems. The decrease in interest in crafts may also be due to the fact that higher education, studies at a higher secondary schools concluded with a final exam or university education is preferred (AMSP ČR, 2020c). In Poland, as in the Czech Republic, the number of people with a university degree is growing and interest in crafts apprenticeships is declining. In 2017, people with

vocational and secondary education accounted for up to 47% of the workforce aged 25–64. Men more often choose education at the secondary school level, women more often prefer studying at general secondary schools and universities (Sztanderska, Grotkowska, 2019, p. 1). The goal of the article is to initiate cooperation between the Czech and Polish academic spheres with connections to the business environment, which would contribute to the employability of graduates in line with the requirements of the labour market. The fulfilment of this goal will help to fill the gap in terms of comparison studies focused on the issue of crafts in the Czech Republic and Poland. In both countries, the support of the craft business is unclear leading to the lacking motivation of young people for employment in the craft sector. The aim of the authors is to prepare an overview article, which would simultaneously compare selected business activities in the Czech Republic and Poland in the field of craft trades with an emphasis on young people and their employability in the labour market.

1 Literature Review

Literature and research studies on the issue of self-employment presuppose two different directions of research. In the first direction, self-employment is associated with entrepreneurship and motivation to seize the opportunity. In the second direction, self-employment is opted for due to limited opportunities in salary evaluation as an employee. Entry and establishment in self-employment is primarily due to changes in labour market conditions, negative shocks to labour demand or limited opportunities. Understanding these differences is important for economic growth and policy making (Luque, Jones, 2019). Formica and Edmondson (2020, p. 28) talk primarily about doing good work and only then emphasise the importance of the economic factor, which in turn leads to a better life for people.

The number of self-employed people is growing rapidly in many European countries. *There is no consensus among academics and policymakers as to whether this is a desirable development, partly caused by the lack of background information on the characteristics of the solo self-employed* (van Stel, van der Zwan, 2020). The authors emphasise the rapidly growing importance of the self-employed, especially the highly educated, in modern, developed economies.

Globally, self-employment is promoted as a vehicle for increasing national and regional economic sustainability, contributing to economic growth, job creation and innovation creators (de Jager et al., 2016). The self-employed have more opportunities for creativity and independence in the chosen field of employment. If they have the opportunity to realise their potential, they are more involved. This commitment concerns basic work tasks, but also the social ones. The authors observe that the choice of employment as a self-employed is indeed an important predictor of the well-being of workers, regardless of the type of occupation chosen (Bujacz et al. 2017). Specific fields of self-employment are part of the creative industry, i.e. subgroups of arts and crafts. In these, knowledge of the field can be systematised and transferred, which can be a source of competitive advantage (Vito et al. 2019). Luck (2016, p. 19) emphasises the need not only for knowledge, skills and abilities, but also the need for communication and the ability to sell one's work.

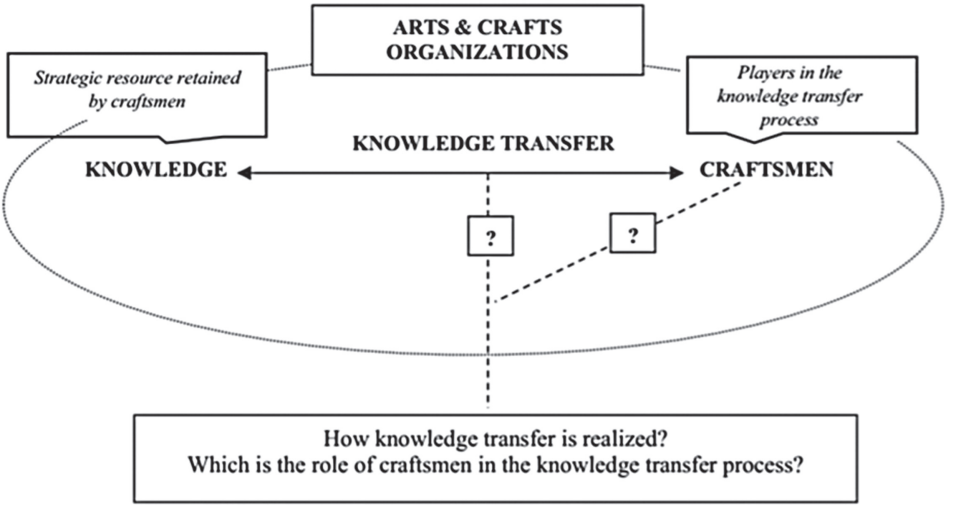
The boundaries are unclear and related concepts, such as craftsmanship, handicrafts or trade, may overlap. Mills (1969) names six main features of craftsmanship: 1. a secondary incentive at work is the product that is produced and the process of its production; 2. the particulars of the day's work are meaningful because they are attached to the product of the work; 3. the craftsman is free to manage his/her own work; 4. the craftsman learns from the daily practice and develops his/her abilities and skills; 5. there is no division of "work and play" or work and culture; 6. the craftsman "determines his/her livelihood and it influences his/her entire way of life" (p. 220). Similarly, Sennet (2006) defines "craftsmanship" as "doing something well for oneself". In addition to this emphasis on the process of generating values, the author argues that the craft should also be evaluated in terms of its outcome. This means that the effort to do things well is reflected in the quality of the final product. This is what Sennet (2006, p. 104) calls objectification, i.e. "a thing designed to matter on its own". According to Høgseth (2013), the issue of knowledge transfer in arts and crafts is gaining in importance. In this particular area, the products are usually made by hand, which makes the knowledge of craftsmen extremely valuable. Its value lies in the success of organisations and economies, as well as the intergenerational transfer of knowledge between craftsmen themselves. In the arts and crafts industry, the analysis of knowledge and its transfer is more important for its subtle connotation than in the creative industry in general. However, this type of knowledge is difficult to associate with performance results, because it exists mainly in the minds of craftsmen as a result of their many years of work experience (Høgseth, 2013). At the heart of the knowledge transfer process in a subgroup of arts and crafts are artisans, true "masters of the arts" who are able to use "hand intelligence", "heart passion" and "mind creativity", i.e. their fine knowledge (Schein, 2004), to gain aura of excellence and provide exclusivity to products that enjoy a unique position in international markets (Sennett, 2008).

Craft workshops are most often companies in the group of small and medium-sized enterprises. They most often employ several people, there is often a workshop for one person (e.g. tailor, goldsmith, shoemaker). Craft is a traditional field, but a modern field as well. *A craftsman is often an innovative, creative designer and producer at the same time, offering a unique product or an unconventional approach to a subject. On the one hand, the craft attracts and engages customers, introduces fresh air and, on the other hand, the market is tired of mass production. Increasingly, there is a trend towards maximum individualisation of the offer, which in turn is reflected in quality. Talent, workshop, experience and often aesthetic sense are the elements that make up a craftsman's success today. The crafts, reborn through its products, guarantee a unique product, which is its undeniable advantage given the growing demands of customers. The effort spent on brand development based on craftsmanship and workshop is a future-oriented investment* (Zjawiony, 2018). Břečková (2017) talks about the importance of small SMEs and craftsmen in terms of an innovation potential for the economy.

The knowledge of craftsmen can therefore be considered a real financial source (Davenport and Prusak, 2000). Emphasising the value of this knowledge and its transfer will become relevant to the survival and growth of arts and crafts and traditions. Nevertheless, in the field of arts and crafts, there is a lack of practical understanding of the relationship between knowledge and the role of craftsmen in the process of knowledge transfer (Manfredi et al., 2018). The knowledge of craftsmen is indeed a primary benefit in the modern economy, for example in the creative industries, where they are mainly the

result of individual inspiration and skills, talents capable of creating wealth (Hennekam and Bennett, 2017; Lampel and Germain, 2016). The activities of craftsmen are based on knowledge, their unique skills and abilities by primary functions. These have a significant impact on creating a competitive advantage through the development of exclusive handmade artefacts. To this extent, a craftsman or craft organisation that owns and effectively manages its knowledge and recognises it as a key resource to be transferred can build a solid and recognisable corporate and brand identity using a unique legacy of quality and creativity (Davenport and Prusak, 2000). Knowledge can therefore be considered a strategic organisational resource that needs to be properly managed and transferred among employees and to the new generation. According to Evans (2017, p. 28), the reason for the transfer and sustainability of knowledge is a significant value in the form of responsibility of individuals, teams and organisations. Kragulj (2017) conducted a survey of human capital in the craft industry in Austria. Metaphorically, he uses the terms "head" and "hand" to compare the two main types of knowledge that occur in the craft industry: rational knowledge (explicit knowledge) versus practical knowledge (tacit knowledge). He summarised the results into four statements: 1. Hand and head are equal – craft practice builds upon knowledge. 2. The hand knows more than the head – Techne is the predominant category of knowledge in the craft (note the term "techne" was promoted by e.g. Plato, Aristotle). However, the craft is perceived as a practice that goes beyond techne. 3. The head cannot say what the hand is doing – the skills involved in the craft practice strongly depend on the tacit knowledge, which is internalised and inherent in the craftsman, passed on mainly by demonstration and imitation. 4. It is more than a hand and a head – the craftsman's knowledge is multidimensional: it includes knowledge of the body, tools/equipment and material. However, knowledge goes beyond pure technical skills and therefore includes other types of knowledge, such as aesthetic knowledge, emotional knowledge and intuition. Figure 1 below, the process of transferring craft knowledge and skills according to Vito et al. (2019).

Figure 1: Craft knowledge process cycle



Source: Vito, M. L., F. Frattini, A. M. Petruzzelli and M. Berner (2019), p. 1337

At a time when the business environment is constantly changing, it is a challenge for organisations to manage the tension between embedded (invested) learning from the past (from previous generations), which allows it to use and further develop learning, and new learning, which must be enabled to be viable, through the processes of proper knowledge transfer (Vito et al. 2019).

2 Methodology

The methodological option in this case was determined on the basis of a systematic review of the literature (Durach et al. 2017) so that it is possible to fulfil the goal, discuss the results and come to a conclusion. Based on the obtained data, the method of descriptive statistics was used for processing.

In statistical research, we are interested in mass phenomena and processes, in which we examine the rules that manifest themselves in a large number of elements. The elements of research are statistical units. For these units, we monitor the properties of statistical units, variables. The sum of characters and quantities forms data. The measurement method and variables must meet the conditions of validity (whether what is to be measured is measured), reliability (reproducibility of the measurement) and objectivity (whether different assessors measure statistical units in the same way). "The measurement results must be ordered, graphically expressed and parameterised with suitable empirical parameters. These tasks can be accomplished using basic statistical processing. The result of elementary statistical processing is an empirical picture of the examined sample statistical population. Elementary statistical processing also completes the group of basic statistical methods that can be called descriptive statistics" (Záškodný et al., 2011, p. 20, 22).

For the purposes of the paper, data from databases of statistical offices, ministries and associations in the Czech Republic and Poland were used. Data from ministries and statistical offices refer to the number of specific trades and business entities, business persons categorised by age group. Data from associations relate to the development of the number of graduates of study fields, data on study fields according to selected groups and fields of business. The monitored period is 2015–2019, depending on the availability of individual sources and countries. The data is processed into Figure and Table format.

The aim of the article is to map the area of crafts and young people's interest in them in the Czech Republic and Poland. Then carry out a comparative study of both countries. To meet the goal, the authors identified four research questions (RQ1, RQ2, RQ3, RQ4).

- **RQ1**: To what extent are young people motivated to run a business?
- **RQ2**: It can be assumed that young people, after graduating, first gain work experience and practice and only then start their own business in the field. To what extent is it important for young people to gain work experience before starting a business?
- **RQ3**: To what extent are craft trades promising for young people?
- **RQ4**: The engineering and manufacturing industries and services are important in the Czech Republic and Poland. Will these fields prevail among young people?

If so, to what extent will these fields be chosen by young people as their future professions?

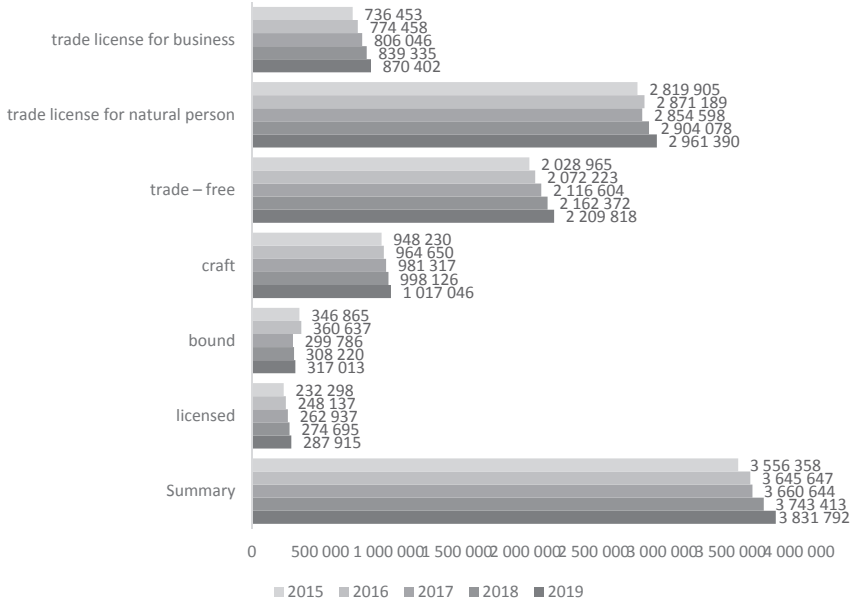
3 Research results

This chapter discusses trades and craft trades and the potential interest in entrepreneurship in young people in the Czech Republic and Poland. The current labour market in both countries seriously lacks quality employees and suffers by the lacking preparation of students for the real job. Quality does not equal highly qualified, but one who has a real interest in working and learning new things. This is a necessity for which the population in general must prepare. That is, lifelong learning will be essential for professional life. Both because of the rapid development of the technologies that will need to be worked with and because of the faster changes in society, its changing needs and demands. In both countries, the data is external, taken from public databases.

3.1 Research results in the Czech Republic

The following chapter will discuss entrepreneurs and trade licenses according to the age structure, and graduates of apprenticeships. Figure 2 below gives an overview of entrepreneurs and trades in the years 2015–2019 in the Czech Republic.

Figure 2: Overview of entrepreneurs and trades in the years 2015–2019 in the Czech Republic

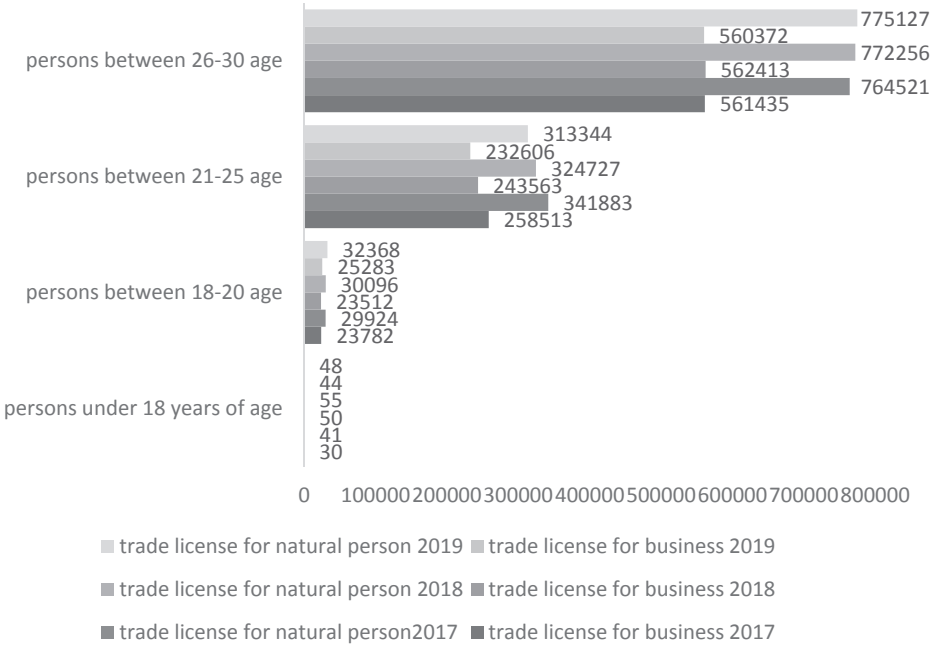


Source: authors' processing according to MPO, 2020a

In the Czech Republic, in the years 2015–2019, the number of issued trade licenses always increases by approx. 4% per year. The largest number of trade licenses was issued in 2019 and the least in 2015. The downward trend in the bound trades in the years 2017–2019. Free trades predominate, which may include, for example, the provision of services for agriculture, horticulture, pond farming, forestry and hunting, manufacture of machinery and equipment, wholesale and retail, accommodation services. This is followed by craft trades, such as the profession of butcher, baker, glassblower or hairdresser. Bound and licensed trades follow. An example of a bound trade is, for example, design activity in construction or the activity of accounting consultants. An example of a licensed trade is, for example, the production of alcohol, explosives or thermal energy. Of the total valid trade licenses, trade licenses for natural persons predominate compared to legal entities in the years 2015–2019, namely approximately 3.5times to 4.5times.

The following is a part concerning young natural persons in the age group up to 30 years of age engaged in business and trade licenses according to the age structure in the years 2017–2019 in the Czech Republic, see Figure 3.

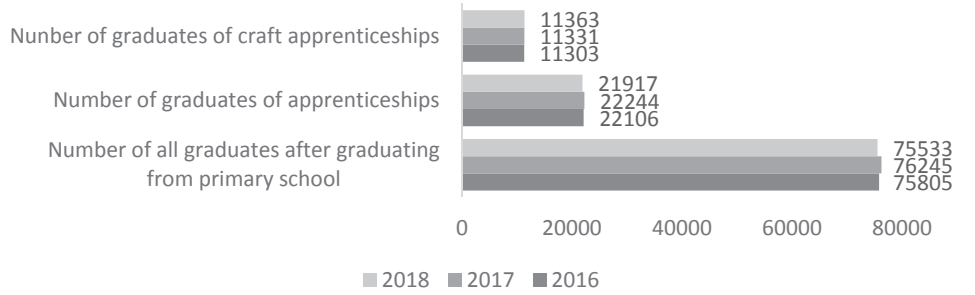
Figure 3: Numbers of natural persons engaged in business and trade licenses according to age structure in the years 2017–2019 in the Czech Republic



Source: authors' processing according to MPO, 2020b

From the above Figure 3, it is clear that the predominant group are owners of a trade license from the age group between 26–30 years, followed by the age group 21–25 years, then the age group 18–20 years. The age group up to 18 years is the least represented, where in the individual years it is only the units of young owners of a trade license. The following is the issue of apprenticeship graduates in the years 2016–2018 in the Czech Republic, see Figure 4.

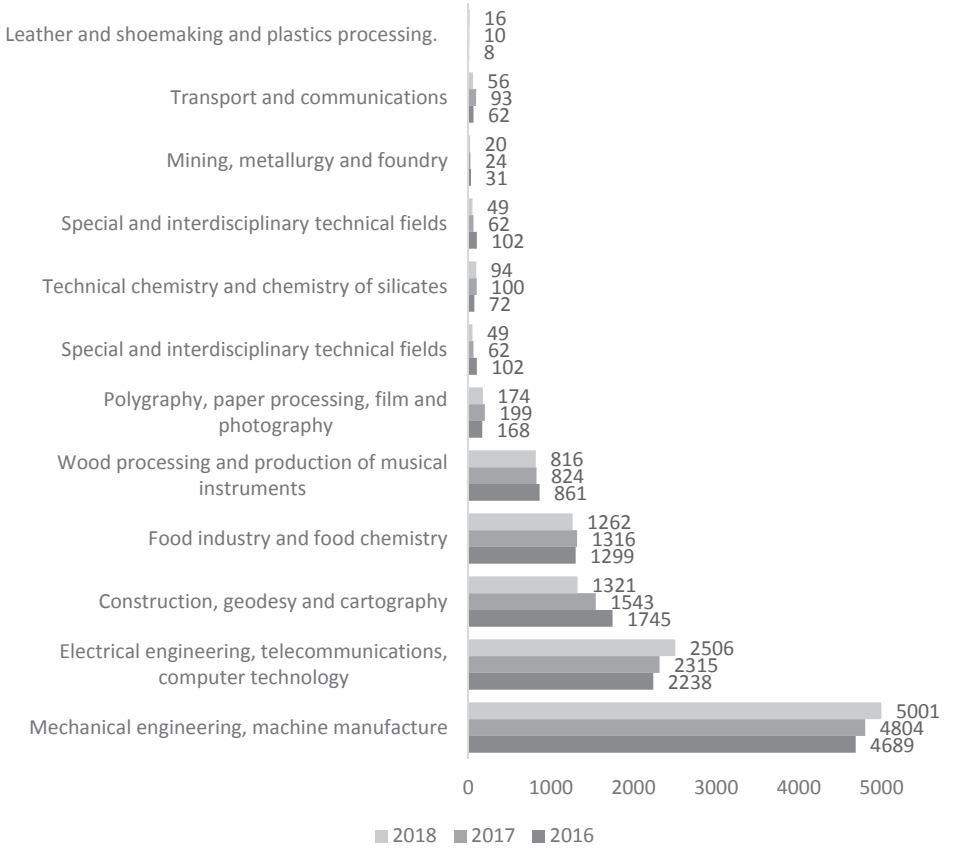
Figure 4: Comparison of graduates of all fields following the lower secondary schools with apprenticeships in the years 2016–2018 in the Czech Republic



Source: authors' processing according to AMSP, 2019

The number of graduates of apprenticeships in the years 2016–2018 is almost balanced. There are over 75,000 graduates every year. The share of apprenticeship graduates in relation to all graduates of fields following lower secondary schools in 2016 and 2017 is 29.2% and in 2018 it is 29%. The share of craft graduates in relation to all graduates of fields following lower secondary schools in 2016 and 2017 is 14.9%, and in 2018 it is 15%. The number of graduates of craft apprenticeships is half that of graduates of apprenticeships. The following is an overview of graduates and their share in fields of study in the years 2016–2018 in the Czech Republic, see Figure 5.

Figure 5: Development of the number of graduates of study fields in the years 2016–2018 in the Czech Republic

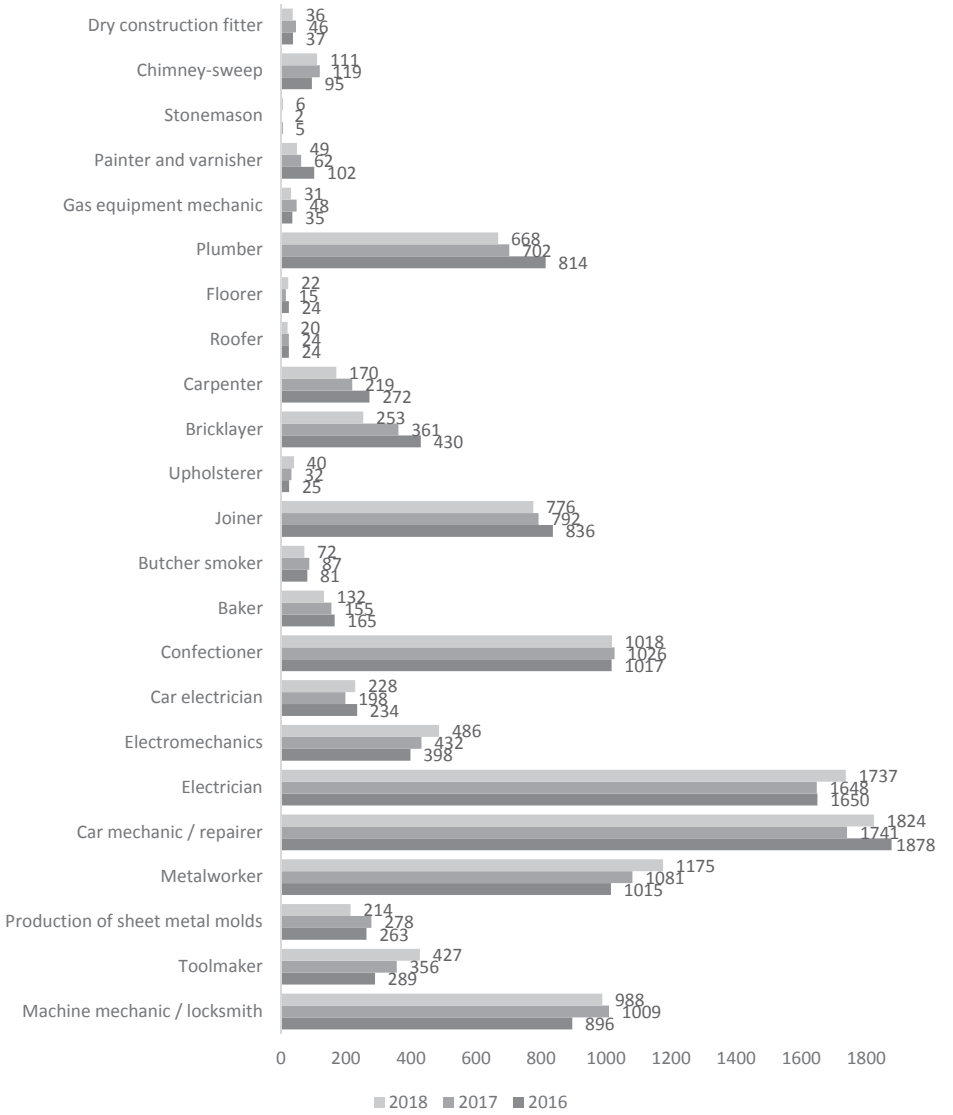


Source: authors' processing according to AMSP, 2019

The largest shares in the total number of graduates are in the fields of mechanical engineering, machine manufacture, electrical engineering, telecommunications, computer technology, construction, geodesy and cartography, food and food chemistry, wood processing, production of musical instruments. Graduates of other fields are represented in units, such as leather and shoemaking and plastics processing.

The following is the issue of study fields in selected groups in the years 2016–2018 in the Czech Republic, see Figure 6. The study fields are divided as follows: 1) engineering professions (mechanist/locksmith, toolmaker, coach-builder, metalworker, car mechanic / repairer, electrical professions, electrician, electrotechnical engineer, car electrician); 2) food professions (confectioner, baker, butcher, smoker); 3) furniture professions (carpenter, upholsterer); 4) construction professions (bricklayer, carpenter, roofer, floor layer, plumber, mechanic of gas equipment, painter and varnisher, stonemason, chimney sweep, drywall fitter).

Figure 6: Fields of study in selected groups of fields in the years 2016–2018 in the Czech Republic



Source: authors' processing according to AMSP, 2019

The predominant fields of study are engineering professions, such as car mechanic / repairman, electrician, metalworker and mechanist/locksmith. This is followed by the professions of confectioner, carpenter and plumber. The metalworker, electrician and toolmaker showed an upward trend. Decrease in the number of graduates is recorded in the food and most construction professions. For example, graduates of the stonemason, floor layer and roofer fields are represented in the order of units.

3.2 Research results in Poland

The following Table 1 shows the number of economic entities, which are compiled on the basis of the Polish classification of activities. This classification does not include craft as a separate sector. The Central Statistical Office does not provide such a list. It is impossible to say how many craft enterprises currently operate. Due to the fact that craft workshops and companies are not obliged to be part of craft organisations, e.g. a craft guild, it is difficult to determine the number of craft enterprises operated.

Table 1: Selected rates on newly-born and liquidated of enterprises by NACE sections

		Number of enterprises			Rate			
	Year	Active	Newly-born	Liquidated	Birth	Liquidation	Change in the no. of enterprises	Change in the no. of persons employed
					in %			
Total	2014	2310075	289067	235707	12,5	10,2	22,6	25,0
	2015	2357486	283760	206314	12,0	8,8	37,5	31,3
	2016	2322431	282433	209866	12,2	9,0	34,6	28,5
	2017	2412068	290704	.	12,1	.	.	.
	2018	2329239	305731	.	13,1	.	.	.
Industry	2014	259387	26397	22846	10,2	8,8	15,5	14,4
	2015	262932	25858	20995	9,8	8,0	23,2	9,4
	2016	254099	25758	21427	10,1	8,4	20,2	4,5
	2017	260375	26565	.	10,2	.	.	.
	2018	248890	27156	.	10,9	.	.	.
Construction	2014	302932	43698	38448	14,4	12,7	13,7	16,8
	2015	311566	46646	34764	15,0	11,2	34,2	28,2
	2016	315231	50301	39574	16,0	12,6	27,1	19,0
	2017	329411	54835	.	16,6	.	.	.
	2018	326183	61043	.	18,7	.	.	.
Trade; repair of motor vehicles	2014	644770	73738	75062	11,4	11,6	-1,8	1,5
	2015	635182	66619	61500	10,5	9,7	8,3	5,2
	2016	589048	60986	57049	10,4	9,7	6,9	8,8
	2017	590067	56831	.	9,6	.	.	.
	2018	545548	55518	.	10,2	.	.	.
Transportation and storage	2014	172998	16948	17066	9,8	9,9	-0,7	9,8
	2015	176091	20584	14877	11,7	8,4	38,4	44,2
	2016	177323	20201	13492	11,4	7,6	49,7	58,4
	2017	185361	20349	.	11,0	.	.	.
	2018	172998	20555	.	11,9	.	.	.
Other activities	2014	929988	128286	82285	13,8	8,8	55,9	58,6
	2015	971715	124053	74178	12,8	7,6	67,2	64,0
	2016	986730	125187	78324	12,7	7,9	59,8	53,9
	2017	1046854	132124	.	12,6	.	.	.
	2018	1035620	141459	.	13,7	.	.	.

Source: authors' processing according to GUS, 2020b. Note: as at 31 December 2020.

In recent years, more than 300 thousand new enterprises have been created in Poland every year, but more than 200 thousand enterprises cease to operate. The presented data show that the number of active enterprises in Poland from 2014 to 2018 remains at a similar level, between 2.3 and 2.4 million. Most companies operate (with a declining trend) in the field of trade, motor vehicle repair. The highest number of enterprises that ceased to operate is recorded in this sector. The highest growth (with a growing trend of 14.4% in 2014 to 18.7% in 2018) of new enterprises is in construction. The following Table 2 shows the breakdown of enterprises by sector of the PKD field and their size in terms of number of employees.

Table 2: Entities of the national economy registered in the REGON register, declaring activities according to the expected number of employees and PKD 2007

CODE PKD 2007	Expected number of employees				
Section	**Total**	**0–9**	**10–49**	**50–249**	**250=>**
Total Poland	4001600	3841945	129150	26360	4145
A – agriculture, forestry, hunting and fishing	63193	60465	2180	527	21
B – mining and quarrying	3974	3494	338	108	34
C – manufactured products	337236	308052	22310	5547	1327
D – electricity, gas, steam, hot water and air conditioning manufacturing and supply	9949	9388	308	191	62
E – water supply; sewerage, waste management and remediation activities	12751	10436	1659	582	74
F – constructions	498021	483480	12952	1447	142
G – wholesale and retail trade; repair of motor vehicles including motorcycles	868542	842915	22609	2684	334
H –transportation and storage	239643	234320	4461	679	183
I – accommodation and food service activities	112802	107662	4809	289	42
J – information and communication	164663	161883	2339	361	80
K – financial and insurance activities	109574	107823	1235	423	93
L – real estate activities	260755	256743	3235	703	74
M – professional, scientific and technical activities	422986	416536	5575	715	160
N – administrative and support service activities	124636	120059	3544	791	242
O – public administration and defense; compulsory social security	26514	20550	3324	2220	420
P – education	136518	105421	24658	6293	146
Q – human health and social work activities	240252	231659	6553	1494	546
R – arts, entertainment and recreation activities	72466	68992	2874	563	37
S – other service activities	284748	279904	3993	727	124
U – extraterritorial organizations and bodies	247	183	50	10	4
No PKD	12130	11980	144	6	-

Source: authors' processing according to GUS, 2020a. Note: as at 31 December 2020

The largest group of entities (96%) in Poland are micro-enterprises employing 1–9 employees. Most employees (45%) in three sectors: wholesale and retail; repair of motor vehicles, including motorcycles (22%), construction (12%), professional, scientific and technical activities (11%). In enterprises with more than 9 employees, the predominant entities are divided into three branches: processed products (according to the breakdown by occupation: 17%, 21%, 32%), wholesale and retail trade; repair of motor vehicles including motorcycles (18%, 10%, 8%) and education (19%, 24%, 4%)

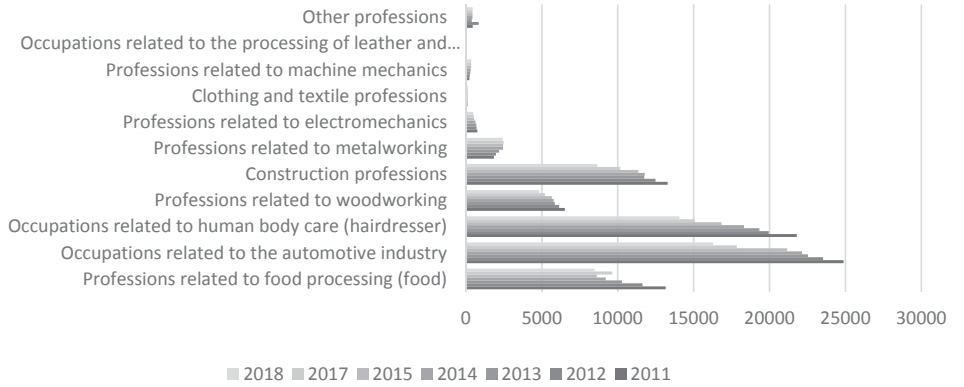
Although it is difficult to determine the actual number of craft enterprises in Poland, it is much easier to determine the number of future craftsmen. There are certain occupations for vocational and secondary education, including the craft occupations offered by the education system. The professions taught in vocational schools in Poland in the last 8 years were divided into 11 groups (Table 3 below), which included 80 occupations (details in ZRP-SUwZ, 2019).

Table 3: Young workers employed for apprenticeships in artisan workplaces

Group	Apprenticeship	Year						
		2011	2012	2013	2014	2015	2017	2018
A	Professions related to food processing (food)	13156	11624	10279	9209	8619	9635	8463
B	Occupations related to the automotive industry	24883	23524	22534	22141	21159	17847	16291
C	Occupations related to human body care (hairdresser)	21799	19949	19329	18319	16839	15064	14072
D	Professions related to woodworking	6510	6131	5855	5773	5661	5200	4831
E	Construction professions	13287	12487	11746	11777	11355	10164	8652
F	Professions related to metalworking	1836	1972	2187	2440	2447	2478	2413
G	Professions related to electromechanics	749	697	677	620	539	515	471
H	Clothing and textile professions	101	94	87	93	110	113	114
I	Professions related to machine mechanics	220	244	281	306	333	343	343
J	Occupations related to the processing of leather and fur	23	24	16	15	13	9	10
Different	Other professions	438	837	379	426	434	424	442

Source: authors' processing according to Związek Rzemiosła Polskiego, 2019b

Figure 7: Young workers employed for apprenticeships in artisan workplaces



Source: authors' processing according to Związek Rzemiosła Polskiego, 2019b

In the years 2011–2018, 6 professions predominated. In 2018, juvenile workers (similarly to previous years) were most often employed for training as a hairdresser – 14,072 people (group C), car mechanic – 12,307 people (group B), carpenter – 3,858 people (group D), confectioner – 3,854 people (group A), a chef – 3,090 people (group A) and an electrician – 2,880 people (group E). The only profession that saw an increase in interest in 2011–2018 is the machine tool operator (Group F). In 2018, 523 young people worked in this profession, an increase of almost 160% compared to 2011 (ZRP-SUwZ, 2019). The figures below show the number of craft establishments and the number of young workers in 2013–2018, see Table 4.

Table 4: Students – employment of young employees for professional preparation at craft workshop

Year		2013	2014	2015	2016	2017	2018	2018/2013
Number of training establishments		24702	23819	23087	23088	23516	21835	88%
Number of young people	apprenticeship including %:	76045	73575	71170	65982	64695	57544	76%
	women	32,98	32,3	32,7	-	-	33,56	102%
	men	67,02	67,7	67,3	-	-	66,44	99%
	apprenticeship training including %:	2395	2467	2553	-	-	1500	63%
	women	16,62	17,1	20	-	-	19,2	116%
	men	83,38	82,9	80	-	-	80,8	97%
	total	78440	76042	73723	-	-	59044	75%
	women	32,49	31,7	32,3	-	-	33,3	102%
	men	67,5	68,3	67,7	-	-	66,7	99%
Theoretical training of young people	school form	73510	66859	69407	-	-	56230	76%
	out of school form	3477	7226	2471	-	-	1684	48%
Adults		-	34	74	-	-	43	

Source: authors' processing according to Związek Rzemiosła Polskiego, 2019a

The data in Table 4 show that the number of craft enterprises admitting students to apprenticeships has decreased over the last 6 years to 12% since 2013. The decrease also concerns the number of apprentices in craft enterprises (24%) and persons trained to improve qualifications (37%). The number of adolescents using theoretical education has also decreased, i.e. by 24% in school form and by 52% in extracurricular form. The proportion of women and men remains unchanged.

4 Discussion

The issue of graduates of craft apprenticeships who, even after completing their apprenticeship, devote themselves to their craft as self-employed or as employees, is very topical in the Czech Republic and Poland. In the Czech Republic, there is an upward trend of issued trade licenses in the monitored years 2015–2019. Trade licenses for natural persons predominate, especially for free and craft trade. Free trades make up more than two thirds and craft trades almost a third of all issued trade licenses. In 2019, over 3,831 thousand trade licenses were valid, compared to 2018, this is an increase by almost 2.4%. There is a growing trend in the age group 18–21 years, compared to the age group 21–25 years, where the trend is declining. In Poland, over 300 thousand new enterprises are founded every year, but two thirds of them cease their activity each year. The lack of qualified staff in the field begins with the interest or lack of interest in studying the field. It is possible to observe a growing trend of issued trade licenses and an increase in the number of business entities. RQ4: The engineering and manufacturing industries and services are important in the Czech Republic and Poland. Will these fields prevail among young people? If so, to what extent will these fields be chosen by young people as their future professions? In the Czech Republic and Poland, there has been a long-term declining trend of graduates of craft apprenticeships. In Poland, this declining trend has been around 12% in recent years. However, interest in the fields of study has been growing in the last few years. The predominant group consists of the other general activities, followed by trade, motor vehicle repairs, construction and industry. The predominant group of entities (96%) are micro-enterprises with a focus on wholesale and retail; repair of motor vehicles, including motorcycles; construction; professional, scientific and technical activities. The structure is similar in both countries. The profession of graduate in the field of hairdresser and car mechanic has long prevailed. Carpenter, confectioner, cook and electrician follow well behind. The only profession that has seen an increase in interest of up to 160% is machine tool mechanic. In the Czech Republic, the predominant field is car mechanic / repairman, electrician, mechanist/locksmith, confectioner, carpenter and plumber. However, professions in some fields, such as hairdressing, can also be exercised after retraining. However, in the first years after training, recent graduates often leave their chosen field and do not pursue their profession in the future. Expert estimates speak of almost a half (AMSP, 2020d). Young people start a business between 26–30 years of age, followed by the age group 21–25 years, then the age group 18–20 years. The age group under 18 is the least represented, where it is possible to talk about units of young entrepreneurs. RQ1: To what extent are young people motivated to run a business? There is no clear answer. For young people, there is a noticeable increase in the number of issued trade licenses after graduating in their field of study. The selected field is especially important for the motivation of one's own business.

According to Petrů, Pavlák (2018), young people have lately preferred getting a conventional job to doing business. This is because minimum unemployment allows them to choose from the offers of many employers. Concerns about administration and impending sanctions also play a role. In addition, young people refuse to deal with things that cause stress, they don't live to work, but they work to live. RQ2: It can be assumed that young people, after graduating, first gain work experience and practice and only then start their own business in the field. To what extent is it important for young people to gain work experience before starting a business? Job experience is important for graduates, but the administrative burden of entrepreneurs, lack of knowledge of this issue and the preference of young people in work-life balance play a big role in deciding on their own business. The result of the survey is surprising in terms of students' readiness for the selected occupation. This topic is very often emphasised in the interaction with companies, but it was not significantly reflected in the survey. Entrepreneurs do not put much stock in the proper preparation of students in secondary vocational education. The result of the survey corresponds to the long-term view of entrepreneurs on secondary vocational schools. The prevailing opinion is that they cannot prepare pupils for subsequent work in the field (AMSP ČR, 2020c). According to Svobodová (AMSP, 2020d), many of the students lack ambitions to aim above the average, although the future of the craft is large and the number of young skilled people with ideas and ambitions is not declining (Petrů, Pavlák, 2018). According to Jaroš (2020), masters of the craft are no less in demand than specialists in other fields. The interest of lower secondary school graduates as well as their parents is evolving according to the increase in the number of children in strong year-classes. If parents are active in the craft, they very often want their offspring to continue in their line of work (AMSP, 2020d).

How to answer RQ3: To what extent are craft trades promising for young people? Research in Poland shows that new jobs are created mainly by industrial workers, machinery and equipment operators. Issues with finding employees with specific professional skills persist (Sztanderska, Grotkowska, 2019, p. 64). Many young people with vocational training have difficulty finding their first job because employers require skills that they cannot acquire at school and without the necessary work experience. Therefore, this is an area that should be given special attention in the process of education in vocational schools and in apprenticeship programs. This is influenced, among other things, by the educational profiles in schools and their connection with current and future labour market needs. New professions are emerging, the nature of work in existing positions is changing. These are factors that make it difficult to adapt training to employers' future expectations (Szczucka, Strzebońska, Worek, 2019, pp. 134–135). Employers are looking for employees with a specific profession, expect professional experience and skills from people with vocational training more than just formal education (Szczucka, Strzebońska, Worek, 2019, p. 121). It can be stated that crafts are promising for young people.

The lack of practising craftsmen in the Czech Republic is the result of the shortcoming in the concept of the studies of craft disciplines. After 1989, uniform and binding educational programs for primary and secondary schools were abolished and the education system diversified considerably. Gradually, a new study offer evolved, new fields. An important external circumstance that had a major impact on schools and school facilities was the loss of children due to the declining demographic curve. During the twenty years after the

Velvet Revolution, the number of pupils in schools gradually decreased as a result of the demographic decline of the 1980s and especially the 1990s. This decline was reflected in the second half of the 1990s with the optimisation of the school network. Changes were made in the system of fields, which in the context of the development of society as a whole went through a relatively dramatic development. Fields of study and apprenticeships were created according to rigid rules. The phenomenon of post-November development is the ever-decreasing share of pupils in apprenticeships. Since 1990, the share of apprenticeship education has been decreasing and the demand for graduation studies has been increasing. Interest in admission to non-graduation subjects declined mainly due to the fact that pupils gained a better prospect of admission to graduation subjects due to the growing educational offer of secondary schools and declining demographic trend (Ministry of Education, 2009)

Polish government policy in the 1990s was aimed at improving access to higher education. Young people were encouraged to study, the number of universities increased, including the establishment of private schools. Many vocational schools have been closed. Entrance exams have been cancelled at most universities. The ease with which it was possible to enter university studies has greatly contributed to the decline in young people's interest in studying at vocational schools. That is the case up until today. As a result, there was a shortage of people qualified to perform craft trades. In addition, the situation has been exacerbated by the demographic trend that has persisted since 2000. As in the Czech Republic, craftsmen and companies in Poland face difficulties finding young graduates. This is confirmed by research conducted by various institutions, such as the Central Statistical Office, the Polish Craft Association, the Ministry of National Education, and the Polish Agency for Business Development. The education reform launched in 2016 is expected to help the situation.

Crafts have undoubted advantages. These are SMEs that, while maintaining their tradition in comparison with large companies, can satisfy the needs of production of goods and services for the specific needs of customers and can be expressed by offering high-quality goods and services. The report on education in Poland, prepared for the European Union, states that in 2017, almost 178 thousand students graduated from vocational schools in Poland. This number is lower by almost 1% compared to 2016, and this declining trend has continued since 2013. This is mainly due to the demographic decline. Attention was paid to increasing the employment rate of vocational education and training graduates. In 2018, it increased to 78.4% (the EU average is 79.5%) from 75.2% in 2017 (MKiS, 2019, pp. 9,10).

After 1989, the education system in Poland was reformed several times. The reforms covered all forms of education. The last concepts related to the reform of education at the level of vocational schools and secondary vocational schools were launched in 2016. Legislation is included primarily in the Act of 14 December 2016 on the Education Act (Journal of Laws, item 59/2019). The changes introduced by law in the vocational education system in Poland are aimed, inter alia, at strengthening employers' participation in vocational education, implementing the monitoring of demand for professions, introducing student internships, changing the way of conducting vocational examinations, changing the organisation of schools and institutions, co-financing education costs students in deficit professions for

employers (MEN, 2018). By law, the first changes were introduced on 1 September 2019. Graduates of lower secondary schools who want to prepare for future careers can do so in the following types of vocational schools: industrial schools of the 1st level – three-year vocational schools; technique – five-year secondary schools preparing for the final exam and exams confirming qualification in the field; 2nd level industrial schools – from 1 September 2020. Students of a 1st level industrial school who are not juvenile employees and students of technical secondary schools may, on the basis of an agreement with the employer, complete an internship for which they receive remuneration paid by the employer, included in tax deductible expenses. The period of practice, as before, will be included in the period of employment of students. Second-cycle industrial schools are to offer education as part of a vocational qualification course (MEN, 2018). The practice or vocational training can take place as part of the school's own studies and workshops, vocational training centres, further education institutions, employers with whom the school will cooperate (Drogosz-Zabłocka, Stasiowski., 2019, pp. 88–95).

The Polish structure of the classification of occupations in vocational education includes over 200 occupations. Most traditionally, craft trades (e.g. locksmith, carpenter, goldsmith, watchmaker, chimney sweep) were included in group 7 – industrial workers and craftsmen (Roz.MEN, 2017). Craftsmen are natural persons who carry out an economic activity on the basis of the Act of 6 March 2018 – Business Act and who, inter alia, in accordance with the Trade Licensing Act, passed an examination under the Chamber of Crafts, obtained a master's degree or a certificate of journeyman profession. In the Czech Republic, this can be compared to the so-called master's certification. The Czech Republic is creating a system of master examinations and master certifications. In the Czech Republic, the master's examination will not only reward the craftsman for the work of the highest quality, but will also restore the function and prestige of the Masters of crafts. The introduction of the master's certification builds on an interrupted tradition that has worked successfully for centuries. The master's certification can be used as a suitable tool for reducing unemployment, as the state can direct applicants to their own business (Chamber of Commerce, 2019).

Discussions have now begun (September 2021) in the academic community and the business community regarding the "graduate profile", which is actually required by business. This interconnection is one of the points of the Strategy for educational policy of the Czech Republic 2030+. It is necessary to create suitable conditions for easier transition of graduates to employment, or to higher vocational or higher education. Those fields of education that are required by the labour market are newly included in the system of fields of education, not only in connection with the process of digitisation and robotisation. Although there is an increasing number of examples of good practice in vocational education where employers can be involved in vocational training and pupils' practice, there is not yet a systemic and well-functioning link between education and work, enabling the school system to respond to changing requirements and needs of the labour market (Ministry of Education, 2020). Interest in studying most apprenticeships has been declining since the 1990s. Is this trend changing and are schools today able to offer high-quality education to students at all? According to Schön (2018), shortcomings mainly lie in the fact that schools do not hire expert teachers, e.g. from professional associations. Teachers cannot move with the times, do not work in the field, often do not know the

regulations and standards that are constantly changing (Businessinfo, 2018). It is desirable to identify fields of education in which pupils and students would be prepared for working life in the changing conditions of the 21st century and at the same time to reflect on the current needs of practice.

Conclusion

Interest in studying craft apprenticeships has been on the rise in recent years and is also evolving based on the number of children in strong grades. Graduates of craft apprenticeships often leave the field after completing the apprenticeship and do not pursue the craft. Future craftsmen often lack a role-model, someone who does their craft well and would pass on knowledge and skills. The advantage is given to those whose parents are engaged in the given craft. In the Czech Republic, the number of graduates of craft apprenticeships has been almost the same in the last few years, namely 11,300 graduates, which is almost 15% of graduates of all fields that follow the lower secondary school. Mechanical engineering, electronics and computer technology, construction and food industry predominate. These are mainly the professions of car mechanic and repairman, electrician, metalworker and mechanist. In the case of food industries, confectioners predominate. In construction, it is the profession of carpenter, bricklayer and plumber. Crafts are often physically demanding and the financial remuneration of a craftsman may not be lucrative and motivating for young people to devote themselves to the field of study. In Poland, the fields of study are automotive, fields related to body care, engineering and food. Specifically, it is the profession of hairdresser, car mechanic, carpenter and the food professions of confectioner and chef. However, the number of workplaces that offer internships and professional training to future graduates of craft apprenticeships has shown a long-term declining trend.

It is necessary to expand the possibilities of educating pupils and students in a real work environment using the widest possible means and forms of cooperation between schools and companies. Communication with representatives of employers is necessary in order to set up the transfer of information on the possibilities of training pupils at workplaces of employers. According to the Strategy 30+, it will be necessary to find the optimal field composition and subsequently revise the framework educational programs. The graduate must have the skills necessary to enter the labour market where the system of education in the professional environment follows, as well as skills necessary for study and civic life to be prepared for lifelong development and education and functioning in society. It is important that the link is two-way and that communication between the business community and the world of education is functional and effective. It is necessary to encourage the strengthening of entrepreneurial spirit in young people and support aspirations to start and run their own business, as society moves faster, its changing needs and demands. How can the question of the paper itself "The Rise or Decline of Craft Trades" be answered? Even at the very end of the article, the answer is not clear. There has been a long-term decline in interest in studying. However, we cannot attribute the decline only to the lack of interest of young people in the given field. It is necessary to take into account the demographic structure, which has a natural development according to the human life cycle, in contrast to which is

the development of society and technology. It is necessary to take into account society and families with different levels of education and to take into account the regional structure. Last but not least, a change in the political system and the subsequent consequences that have a long-term impact. However, the prediction of crafts in the future seems optimistic. New current fields are emerging that appeal to most young people, which use modern technologies or, on the contrary, crafts that are part of the intangible cultural heritage are starting to appeal. It is important to learn crafts from older generations, to preserve and pass them on to younger generations. The authors' future research will focus towards traditional crafts and intangible cultural heritage. It will be important to collaborate with researchers and experts at international and multidisciplinary level.

Acknowledgement

The result was created in solving the student project Intergenerational transfer of family crafts – a challenge for the 4.0 phenomenon, No. 7427/2020/03 using objective oriented support for specific university research of the University of Finance and Administration.

References

AMSP ČR (2019). *Konec zedníků v Čechách*. Available at: http://amsp.cz/konec-zedniku-v-cechach/ [Access: December 10, 2020].

AMSP ČR (2020). *Kam mizí vyučení řemeslníci*. Available at: https://www.fandimeremeslu.cz/kam-mizi-vyuceni-remeslnici/ [Access: December 10, 2020].

AMSP ČR (2020). *Průzkum. Zaměstnanci v malých a středních firmách. 2020*. Available at: https://amsp.cz/wp-content/uploads/2020/11/Ipsos-pro-AMSP_Zam%C4%9Bstnanci_10_2020_z%C3%A1v%C4%9Bre%C4%8Dn%C3%A1-zpr%C3%A1va_KOM.-AMSP-%C4%8CR.pdf [Access: October 1, 2010].

AMSP ČR (2020). *Fandíme řemeslu*. Available at: https://www.fandimeremeslu.cz/o-nas/ [Access: December 10, 2020].

AMSP ČR (2020). *Rada řemeslných cechů s předsedou vlády*. Available at: https://amsp.cz/rada-remeslnych-cechu-s-predsedou-vlady/ [Access: December 20, 2020].

AMSP ČR (2020). *Rok malého podnikání 2020*. Available at: http://amsp.cz/rok-maleho-podnikani-2020/ [Access: December 10, 2020].

BŘEČKOVÁ, P. (2017). SMEs' innovation approach in the Czech Republic. *Marketing and Management of Innovations*. Ukraine: Department of Marketing and Management of Innovative Activity of Sumy State University. Vol. 3, pp. 304–313.

BUJACZ, A., C. BERNHARD-OETTEL, T. RIGOTTI and P. LINDFORS (2017). Task-level work engagement of self-employed and organizationally employed high-skilled workers. *Career Development International*, Vol. 22, No. 6, 7, pp. 24–738. doi: http://dx.doi.org/10.1108/CDI-05-2016-0083

DAVENPORT, T. H. and L. PRUSAK (2000). *Working Knowledge*. Harvard Business School Press, Cambridge, MA.

DE JAGER, W., C. KELLIHER, P. PETERS, R. BLOMME and Y. SAKAMOTO (2016). Fit for self-employment? an extended person-environment fit approach to understand the work-life interface of self-employed workers. *Journal of Management and Organization*, Vol. 22, No. 6, pp. 797–816. doi: http://dx.doi.org/10.1017/jmo.2016.41

DROGOSZ-ZABŁOCKA, E. and J. STASIOWSKI (2019). Drogosz-Zabłocka Elżbieta, Stasiowski Jędrzej Kształcenie zawodowe w Polsce – przemiany, organizacja, efekty. In: *Sztanderska U., Drogosz-Zabłocka E. (science eds.) Wykształcenie zawodowe. Perspektywa systemu edukacji i rynku pracy.; Fundacja Rozwoju Systemu Edukacji, Warszawa 2019.* Available at: http://czytelnia.frse.org.pl/media/Ksztalcenie_zawodowe_online_UkeFFKx.pdf

DURACH, C. F., J. KEMBRO and A. WIELAND (2017). A New Paradigm for Systematic Literature Reviews in Supply Chain Management. *Journal of Supply Chain Management, Vol. 53, No. 4, pp. 67–85*. doi: 10.1111/jscm.12145

EVANS, M. (2017). *Achieve with Accountability: Ignite Engagement, Ownership, Perseverance, Alignment, and Change*. John Wiley & Sons, New Jersey.

GUS (2020). *Kwartalna informacja o podmiotach gospodarki narodowej w rejestrze REGON rok 2020*. Available at: https://stat.gov.pl/obszary-tematyczne/podmioty-gospodarcze-wyniki-finansowe/zmiany-strukturalne-grup-podmiotow/kwartalna-informacja-o-podmiotach-gospodarki-narodowej-w-rejestrze-regon-rok-2020,7,8.html [Access: July 12, 2020].

GUS (2020). *Selected entrepreneurship indicators in 2014–2018*. Available at: https://stat.gov.pl/en/topics/economic-activities-finances/activity-of-enterprises-activity-of-companies/selected-entrepreneurship-indicators-in-2014-2018,10,6.html [Access: July 10, 2020].

HENNEKAM, S. and D. BENNETT (2017). Creative industries work across multiple contexts: common themes and challenges. *Personnel Review*, Vol. 46, No. 1, pp. 68–85.

HØGSETH, H. B. (2013). Knowledge transfer: the Craftmen's abstraction. *Project Muse,* Vol. 4, pp. 61–78.

HOSPODÁŘSKÁ KOMORA ČESKÉ REPUBLIKY (2019). *Mistrovská zkouška*. Available at: https://www.komora.cz/vzdelavani/mistrovska-zkouska/ [Access: November 12, 2020].

KNÍŽKOVÁ, J. (2018). *Podnikatel cz. Konec zfušované práce nepoctivců. Řemeslníci se budou prokazovat osvědčením*. Available at: https://www.podnikatel.cz/clanky/konec-zfusovane-prace-nepoctivcu-remeslnici-se-budou-prokazovat-osvedcenim/ [Access: November 12, 2020].

KRAGULJ, F. (2017). *Characterising human capital in the craft industry*. Kidmore End: Academic Conferences International Limited. Available et: https://www.proquest.com/conference-papers-proceedings/characterising-human-capital-craft-industry/docview/1980474140/se-2?accountid=37662 [Access: July 12, 2021].

LAMPEL, J. and O. GERMAIN (2016). Creative industries as hubs of new organizational and business practices. *Journal of Business Research*, Vol. 69, No. 7, pp. 2327–2333.

LUCK, S. L. (2016). *Zen and the Art of Business Communication: A Step-By-Step Guide to Improving Your Business Writing Skills*. Business Expert Press.

LUQUE, A. and M. R. JONES (2019). Differences in self-employment duration by year of entry & pre-entry wage-sector attachment. *Journal of Labor Research, 40* (1), 24–57. doi: http://dx.doi.org/10.1007/s12122-018-9275-x

MANFREDI LATILLA, V., F. FRATTINI, A. MESSENI PETRUZZELLI and M. BERNER (2018). Knowledge management, knowledge transfer and organizational performance in the arts and crafts industry: a literature review. *Journal of Knowledge Management*, Vol. 22, No. 6, pp. 1310–1331.

MILLS, W. C. (1969). *White Collar. The American Middle Classes*. Oxford: Oxford Uni.

MINISTERSTWO EDUKACJI NARODOWEJ (2018). *Zmiany w szkolnictwie branżowym stały się faktem – nowelizacja ustawy. Prawo oświatowe podpisana przez Prezydenta RP*. Available at: https://www.gov.pl/web/edukacja/zmiany-w-szkolnictwie-branzowym-staly-sie-faktem [Access: July 10, 2020].

MONITOR KSZTAŁCENIA I SZKOLENIA (2019). *Polska, Luksemburg: Urząd Publikacji Unii Europejskiej*, 2019. Available at: https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2019-poland_pl.pdf [Access: July 12, 2020].

MPO (2020). *Podnikání*. Available at: https://www.mpo.cz/cz/podnikani/zivnostenske-podnikani/statisticke-udaje-o-podnikatelich/ [Access: July 12, 2020].

MPO (2020). *Podnikání*. Available at: https://www.mpo.cz/cz/podnikani/zivnostenske-podnikani/statisticke-udaje-o-podnikatelich/pocty-podnikajicich-fyzickych-osob-a-zivnostenskych-opravneni-dle-vekove-struktury--225459/ [Access: July 12, 2020].

MŠMT (2009). *Zpráva o vývoji českého a regionálního školství od listopadu 1989*. 2004. Availableat:http://www.ceskaskola.cz/2009/11/msmt-zprava-o-vyvoji-ceskeho.html[Access: September 12, 2020].

MŠMT (2020). *Strategie vzdělávací politiky ČR do roku 2030+*. Available at: https://www.msmt.cz/vzdelavani/skolstvi-v-cr/strategie-2030 [Access: November 12, 2020].

PAVLÁK, M. and N. PETRŮ (2018). Start-up ecosystem support in the Czech Republic. *Acta VŠFS*. Prague: Vysoká škola finanční a správní. Vol. 12, No. 2, pp. 165–190. ISSN 1802-792X.

PÖLLÄNEN, S. H. (2020). Perspectives on Multi-Material craft in basic education. *International Journal of Art & Design Education*, Vol. 39, No. 1, 255–270. doi: http://dx.doi.org/10.1111/jade.12263

POLSKA. *Rozporządzenie Ministra Edukacji Narodowej z dnia 13 marca 2017 r. w sprawie klasyfikacji zawodów szkolnictwa zawodowego* (Dz.U. 2017 poz. 622).

POLSKA. *Ustawa z dnia 14 grudnia 2016 r. Prawo oświatowe* (Dz.U. 2017 poz. 59, tekst jednolity Dz.U. 2018 poz. 996).

POLSKA. *Ustawa z dnia 22 marca 1989 r. o rzemiośle* (Dz.U. 1989 nr 17 poz. 92, tekst ujednoliocony Dz. U. z 2018 r. poz. 1267, 2245, z 2019 r. poz. 1495).

PRŮCHA, P. and R. POMAHAČ (2002). *Lexikon správní právo*. Ostrava: Sagit, Lexikony – Sagit.

SENNETT, R. (2008). *The Craftsman*. Yale University Press, New Haven.

SENNETT, R. (2008). *The Craftsman*. Allen Lane. New Haven: Yale University Press.

SCHEIN, E. H. (2004). *Organizational Culture and Leadership*. John Wiley & Sons, New York, NY.

SZCZUCKA A., A. STRZEBOŃSKA and B. WOREK (2019). Wykształcenie zawodowe – bariera czy szansa na rynku pracy? Wyniki badania Bilans Kapitału Ludzkiego. In: *Sztanderska U., Drogosz-Zabłocka E. (science eds.) Wykształcenie zawodowe. Perspektywa systemu edukacji i rynku pracy: Fundacja Rozwoju Systemu Edukacji, Warszawa 2019.*

Available at: http://czytelnia.frse.org.pl/media/Ksztalcenie_zawodowe_online_UkeFFKx.pdf [Access: July 12, 2020].

SZTANDERSKA, U. and G. GROTKOWSKA (2019). Wykształcenie zawodowe – miejsce w systemie edukacji i na rynku pracy. In: *Sztanderska U., Drogosz-Zabłocka E. (science eds.) Wykształcenie zawodowe. Perspektywa systemu edukacji i rynku pracy: Fundacja Rozwoju Systemu Edukacji, Warszawa 2019*. Available at: http://czytelnia.frse.org.pl/media/Ksztalcenie_zawodowe_online_UkeFFKx.pdf [Access: July 12, 2020].

VAN STEL, A. and T. VAN DER ZWAN (2020). Analyzing the changing education distributions of solo self-employed workers and employer entrepreneurs in europe. Small *Business Economics*, Vol. 55, No. 2, pp. 429–445. doi: http://dx.doi.org/10.1007/s11187-019-00243-9

VITO, M. L., F. FRATTINI, A. M. PETRUZZELLI and M. BERNER (2019). Knowledge management and knowledge transfer in arts and crafts organizations: Evidence from an exploratory multiple case-study analysis. *Journal of Knowledge Management*, Vol. 23, No. 7, pp. 1335–1354. doi: http://dx.doi.org/10.1108/JKM-11-2018-0699

ZÁŠKODNÝ, P., R. HAVRÁNKOVÁ, J. HAVRÁNEK and W. WURM (2011). *Základy statistiky*. Přepracované 2. vydání. Praha: Curriculum, 256 s. ISBN 978-80-904948-2-4.

ZJAWIONY, T. (2019). Rola Rzemiosła w polskiej gospodarce. In: *Musialik W., Śmietański R. (science eds.): Rzemiosło w wymiarze regionalnym, krajowym i międzynarodowym*. Oficyna Wydawnicza Politechniki Opolskiej, Opole 2019.

ZWIĄZEK RZEMIOSŁA POLSKIEGO (2019). *Raporty z wyników działalności oświatowej*. Available at: https://zrp.pl/wp-content/uploads/2019/05/TABELA-7-Nauka-Zawodu_2011-2018.pdf [Access: July 12, 2020].

ZWIĄZEK RZEMIOSŁA POLSKIEGO (2019). *Szkolenie uczniów w rzemiośle*. Available at: https://zrp.pl/wp-content/uploads/2019/05/TABELA-7-Nauka-Zawodu_2011-2018.pdf [Access: July 12, 2020].

Contact address

Ing. Andrea Tomášková, Ph.D.
University of Finance and Administration
Faculty of Economic Studies, Department of Economics and Management
Czech Republic
(tomaskova.andrea@mail.vsfs.cz)

Roman Śmietański, Ph.D.
Opole University of Technology
Faculty of Economics and Management Economic Studies, Department of International Economic Relations
Poland
(r.smietanski@po.edu.pl)