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THE ROLE AND PLACE OF SMALL BUSINESS IN THE MODERN MARKET OF PHOTO SERVICES

Summary: in addition to problems, common for enterprises in any field of management in the context of the coronavirus crisis, the decline in demand for photo services both in the world and in Ukraine was caused by changes in the photo technologies being used. This mostly affected small businesses, which account for a significant share of the photo services market. By 2025, the global capacity of the world photo services market is predicted to grow to \$44.07 billion, which is due to the reorientation of companies and their recovery from the effects of COVID-19.

In the Ukrainian market, consumption and supply of photo services are decreasing. All indicators of activity of photo services' enterprises are also decreasing, namely the number of enterprises, number of employees, production volumes, capital investments, etc.

To increase the customer base and market value, photographers and service providers need to take advantage of the niche markets. The growth of the photo services market in the near future will be facilitated by the spread of photos on websites and social networking platforms, and the use of modern AI-based tools.

Key words: photo services market, small business, crisis.

1. PROBLEM FORMULATION

The most important event of recent decades, which completely changed the world of photography, is the emergence of digital cameras. The form of image transfer has also changed. A significant stage in the development of the photo business was the emergence of highly sensitive matrices and modern lenses, which made it possible to take quality pictures in low light.

In recent years, some top-of-the-range smartphone models have shown better results than SLR cameras. Of course professional cameras still have higher resolution, but you only notice the difference when printing large format images.

Instagram has become another milestone in the development of photography. With its advent, people developed a need to create a lot of visual content, which has led to an increase in the number of photographers and improved shooting skills among the population. At the same time, photographers had to offer to their customers themed photo shoots in different locations. In addition, bloggers who work on specific topics and need to generate thematic content on a regular basis have emerged.

Social media has popularized photography on the one hand and devalued it on the other. It's not just about digital image processing – although the emergence of Photoshop and Lightroom should also be seen as a separate stage in the development of the photographic business, as photographers have learned to create true masterpieces and batch-process hundreds of images at once with their help – but also about interesting subjects.

RECENT RESEARCH AND PUBLICATIONS ANALYSIS.

The majority of works related to the development of the photo services market are studies by foreign authors. A. Dukhovny and V. Anpilogov analyze the prospects of the photo processing market [1]. M. Fayrushin's work examines the dynamics and current state of the photography business in Russia [2]. Troy Davis (2021) examines the impact of COVID-19 on the global photo services market [3].

However, despite the rapid development of the global photographic market, there is little research into the trends and peculiarities of the photo business in the Ukrainian market. An interesting study in this sense is that of V. Ovcharek and I. Zhylenko [4].

RESEARCH OBJECTIVE (Article Purpose Statement).

The aim of the study is to analyze the features and trends of the global photo services market and to identify the role and place of the small enterprise in the modern market.

2. PRESENTING MAIN MATERIAL

The global photographic services market is set to grow from USD 32.92 billion in 2020 to USD 36.42 billion in 2021 with a compound annual growth rate (CAGR) of 10.6%. The market is projected to grow to \$44.07 billion by 2025 at a CAGR of 5%.

The growth is mainly due to companies refocusing their operations and recovering from the effects of COVID-19, which previously led to restrictive containment measures and involved social distancing, remote working and closure of commercial activities, which in turn led to operational problems.

Major companies in the global photographic services market include Lifetouch Inc; Studio Alice Co Ltd; Getty Images Inc; Portrait Innovations Inc and Cherry Hill Photo Enterprises.

The largest region in the global market for photographic services is North America, in 2020 – 41% of the market:

- Photography in the US Market Size in 2021 – \$11.5bn
- Photography in the US Market Size Growth in 2021 – 4.2%;
- Photography in the US Annualized Market Size Growth 2016–2021 – 0.8% [5].

Asia Pacific is the second largest region, accounting for 29% of the global photographic services market. The smallest region in the global market for photographic services is Africa [6].

The creative industries have suffered considerably in the context of the COVID-19 crisis. These include businesses operating in the photo services market. The changes taking place in the photo services market, apart from changes in technology, are related to the profound crisis caused by COVID-19.

The photo services market, like many others, has faced many, sometimes entirely new challenges in times of crisis. Apart from general economic and demographic factors like decreasing population income levels, declining and “ageing” marriages and a declining birth rate, businesses that provide photo services have faced specific challenges: refraining from marriage ceremonies and baby shower celebrations.

The market is experiencing a decline in demand for photography services in general, due to changes in the photo technology used. At the turn of 2019–2020, there was a veritable revolution in the market for photo services and professional cameras. SLRs have lost their decades-long battle to mirrorless cameras. There has been a tremendous development of photo technology in mobile phones and devices, a revolution in neural networks for photo processing and a boom in the creation of new photo processing software for mobile devices. This means that anyone with a digital camera can take high-quality photos (there are many examples on social media). Nowadays, it is possible to make money from photography if the photographer is really brilliant and/or can surprise you with something [7].

There are 20 cities in Ukraine that are centers for the development of photography. The largest number of market participants (47%) and, accordingly, the largest share of photo services (50%) fall on Kyiv. According to the number of participants in the photo market, Kharkiv ranks second (9%) and the next ones are the cities of Lviv, Odesa, Poltava, Kherson (6–7% each). The remaining 14 cities account for 19% of photo market participants [4].

The market of photographic services consists of the sale of photographic services and related goods by business entities (organizations, individuals-entrepreneurs and companies) that offer services for planning, developing, implementing and managing the process of producing stable images by recording light or by electromagnetic radiation by means of an image sensor or chemically by means of light-sensitive photographic film. It includes image editing, processing and presentation.

The main trends in photography for 2021 were influenced by the events of the past year and the global lockdown (just like our lives in general). This was particularly reflected in self-portraits, aerial photography and object photography.

At the same time, the natural development of technology has resulted in a trend towards photography and processing using information technology (Table 1).

Table 1. The main trends in photography – 2021

Trend	Trend Description
Masks everywhere	Since the beginning of last year, medical masks and respirators have become our must-have accessories. On the way to the supermarket or during a walk, you can see a huge variety of these pieces of protective equipment. In a way, they have become an additional source of information about their owner as well as a symbol of our times. As a result, photographers began using masks as a creative tool for photography.
Switch to vertical format	The pandemic has accelerated some of the processes already taking place in marketing and technology. This applies in particular to the use of Internet predominantly from mobile devices. In 2021, it is much more important for a brand in e-commerce to have an app and website optimized for mobile gadgets rather than a desktop version. Moreover, major social networks, including TikTok, Instagram, WhatsApp and others, are mobile-centric. This creates a demand for vertical photography.
Interest in nature	Nature helps one find peace in the current turbulent times. This opens up a lot of opportunities for authors in natural photography. If portrait photography is now a challenge due to quarantine restrictions in many countries, photographers always have access to nature.
Selfies, family portraits and small company shots	Many photographers today have difficulty finding subjects for creative experimentation. One needs to take many precautions to organize a safe photo shoot outdoors or in a studio. This takes time and is not always convenient. In such an environment, the possibility to make your neighbors, family members, pets and even yourself your own model will help you create regular portrait content.
Nostalgic mood	People like to capture time with the help of photography. That's why everyone has childhood photos that evoke memories and the desire to share them. Generations Y and Z are known for their curiosity and interest in past decades (particularly the 1960s and 1980s). This is reflected in modern advertising, cinema and fashion. Images that convey the aesthetics of the past are at the peak of their popularity today.
Photography and processing based on Artificial Intelligence	In most cases, clients of stock platforms or photographers cannot distinguish between an image taken by machine learning and one processed by a neural network. That is why AI is so important: these technologies allow authors to save time and effort on routine tasks that do not require creativity. Tools that will be great helpers for creators in 2021: Adobe Sensei, Pic app and AI-based background removal tool by Depositphotos.
New angles from the drone	Aerial photography remains on trend and is gaining popularity. For photographers, it became one of the solutions to maintaining social distance. Another advantage is that the equipment is gradually becoming cheaper, so modern drones for professional photography are becoming more affordable. This contributes to the rapid development of aerial photography. The list of drone image categories has expanded to include fashion, sports, and wedding photography.

cd. Table 1.

Trend	Trend Description
Authenticity as the main principle	The concept of authenticity is quite difficult to explain. But surely everyone would agree that authenticity in photography is the opposite of over-edited, staged and embellished images.
Non-standard object photography	The difficulties associated with portraiture motivated the authors to rethink the genre of object photography. They began to look at their surroundings in a new way and create unique images. Fans of macro photography were particularly successful. The trend for minimalism, which has been going on for several years now, has also been reflected in object photography.
Photos of women and diversity	The trend for diversity in creative photography has been around for a long time. We are seeing a growing demand for images of people of all ages, genders, skin colors, health conditions, doing business, sports or household chores. This trend is reflected in advertising, which increasingly presents a variety of people. Photos of smiling women have always been popular on the stock photography web sites. But the way women are portrayed has changed significantly over the years; stereotypes are a thing of the past. Promising themes for photography today are women's empowerment and body positivity.
„Invigorating” colors	Black and white creative photography looks less optimistic than color one. Warm (but not too intense) color palettes give the audience a sense of security, confidence and liveliness. „Symbols of optimism” are at the top of the list of visual trends. Symbols are not only objects, but also their colors.
Reflection of activism	Proactive attitude and social activism have become the most important values for millennials. Protecting nature, fighting for equality, protesting against animal exploitation, and the zero-waste movement are widely discussed topics today. Moreover, the social mission is a prerequisite for modern brands. Therefore, activists, businesses and the media need images that highlight social issues.

An interesting study is that of the auction photography market [8]. In recent decades, photography has accounted for an average of 4% of the total number of lots sold in the public sector. The share in total sales was much lower – between 0.1 and 0.3%. It should be pointed out that 85% of the photos were sold for less than USD 10,000 and 44% were sold for less than USD 1,000, which is in the price range of mass-production art.

The photo auction market recovered faster than other areas after the 2015–2016 crisis, the 2017 season was the most successful in the history of the market: the three largest auction houses, Sotheby's, Christie's and Phillips, sold photographers' works for USD 84.8 million. At the same time, the 25 most successful photographers accounted for more than 70% of sales. In 2019, sales amounted to USD 61.0 million, but there was a significant increase in young names, with major sales occurring in the under USD 5K sector. 2020 was ambiguous for the

photography market: while trending upward, the photography market expectedly went into a pandemic shadow, with total revenues for low-cost photography exceeding USD 1 million for the first time since 2015.

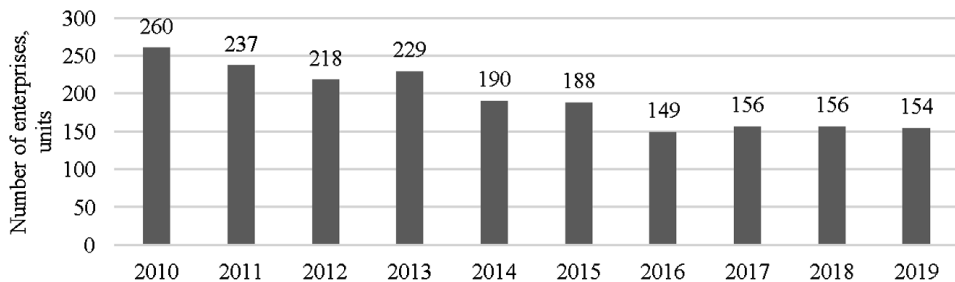
The market share of modern photography in 2020 increased to 47% compared to 33% in 2019. Modern photography sales were USD 19.8 million, down 7.0% from the previous year [9].

Modern trends in the development of photography in Ukraine are [4]:

1. Mobilography / iphoneography – mobile photography as a modern form of contemporary art – a type of photographic art in which electronic devices with a built-in digital camera are used as a tool. Mobilography is mostly about the subject matter and the unusualness of the angle.
2. Scanography is a trend of modern photographic art in which a photographic image is obtained without the involvement of a camera. The essence of the technology is the placement of objects on the scanner panel, allowing the photographer to print unique compositional solutions with virtually no use of graphic editors.
3. Stock photography is a modern entrepreneurial trend in photographic activity, through which a photo image in a variety of topics is posted in an image bank thus acquiring commercial value. Stock photos are sold on the public stock market and are used by buyers (publishers, advertising agencies, decorators, designers, etc.) for illustrations or advertising. Funds from the sale of photographic works are received by image banks which, in turn, pay to the authors. This technology allows all processes (sending photos, selling them, calculations) to be done remotely.

The statistics of the development of the photo market in Ukraine is disappointing. The number of enterprises providing photo services decreased from 260 in 2010 to 154 in 2019 or by 41% (Figure 1).

Figure 1. Number of enterprises in the field of photography, 2010–2019



Compiled according to [10].

And a large proportion of them are small enterprises, from 97.7% of the total in 2012 to 100% in 2011.

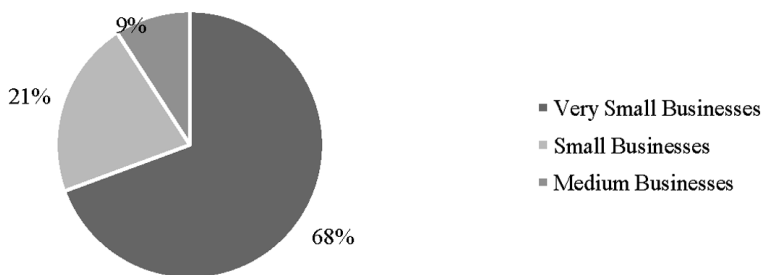
In the field of photo services, micro enterprises are the majority of the total number of small businesses – from 86.7% in 2012 to 98.4% in 2015 (Table 2).

Table 2. Number of enterprises in the field of photography with division into medium, small and micro enterprises for 2010–2019*

Years	Number of enterprises, pcs	Including			
		medium	small	of which micro-enterprises	
		pcs.	pcs.	pcs.	as % of the total indicator of the relevant type of activity
2010	260	2	258	240	92.3
2011	237	–	237	222	93.7
2012	218	5	213	189	86.7
2013	229	1	228	216	94.3
2014	190	1	189	183	96.3
2015	188	1	187	185	98.4
2016	149	1	148	144	96.6
2017	156	1	155	151	96.8
2018	156	2	154	151	96.8
2019	154	1	153	149	96.8

* according to NACE code 74.2 and 74.20, there are no large enterprises
Compiled according to [10]

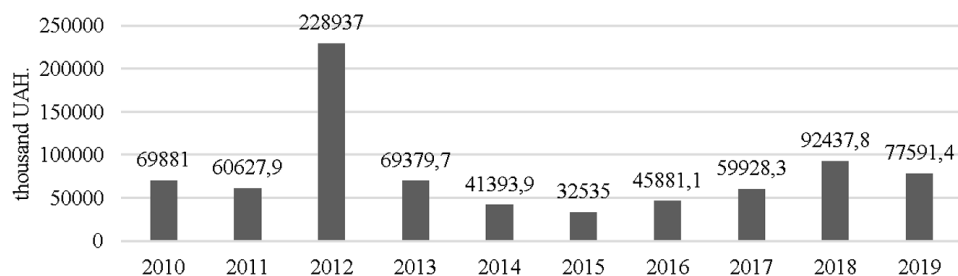
Significant share of micro-enterprises is a global trend in the market of photo services (Figure 2, Table 3) [11].

Figure 2. The structure of the commercial photography market**Table 3. Analysis of the market of potential customers in the market of commercial photography by types of enterprises**

Potential Customers	Growth						CAGR
Very Small Businesses	10%	1.000	1.100	1.210	1.331	1.464	10.00%
Small Businesses	15%	500	575	661	760	874	14.98%
Medium Businesses	20%	200	240	288	346	415	20.02%
Total	12.81%	1.700	1.915	2.159	2.437	2.753	12.81%

2012 was a successful year for enterprises in the field of photo services – the volume of sold products amounted to UAH 228,937 thousand. In subsequent years, this figure was less than UAH 100,000 thousand. (Fig. 3).

Figure 3. Volume of sold products (goods, services) of enterprises in the field of photography in 2010–2019, thousand UAH



Compiled according to [10].

The total number of people employed in the field of photo services is insignificant, ranging from 1,207 persons in 2010 to 431 persons in 2019, with most of those employed in micro-enterprises (Table 4).

Table 4. Number of people employed in photography with a breakdown into medium, small and micro-enterprises for 2010–2019.

Years	Number of employees, persons	Including			
		medium	small	of which micro-enterprises	
		persons	persons	persons	as % of the total indicator
2010	1207	c	c	672	55.7
2011	940	–	940	579	61.6
2012	1772	786	986	492	27.8
2013	1029	c	c	456	44.3
2014	857	c	c	459	53.6
2015	425	c	c	379	89.2
2016	431	c	c	348	80.7
2017	498	c	c	285	57.2
2018	434	c	c	240	55.3
2019	431	c	c	299	69.4

* according to NACE code 74.2 and 74.20, there are no large enterprises

c – Data are not published in order to ensure compliance with the requirements of the Law of Ukraine “On State Statistics” regarding the confidentiality of statistical information (primary and secondary blocking of sensible values).

Compiled according to [10].

The volume of capital investments in the field of photo services is insignificant. The largest amounts of investments were observed in 2018 (UAH 201,000). On the other hand, in 2019 there were no capital investments in the field of photo services at all (Table 5).

Table 5. Capital investments of enterprises in the field of photography with a breakdown into medium, small and micro enterprises in 2010–2019*

Years	Capital investments – total, thousand UAH		
	medium	small	of which micro-enterprises
2010	c	c	163
2011	–	1258	10
2012	3246	372	10
2013	c	c	22
2014	c	c	17
2015	–	c	15
2016	–	c	24
2017	–	c	8
2018	c	c	201
2019	c	c	–

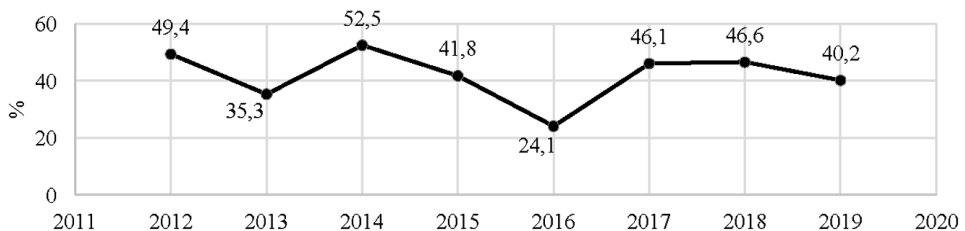
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Compiled according to [10].

More than a third of the total costs of production are personnel costs (Figure 4).

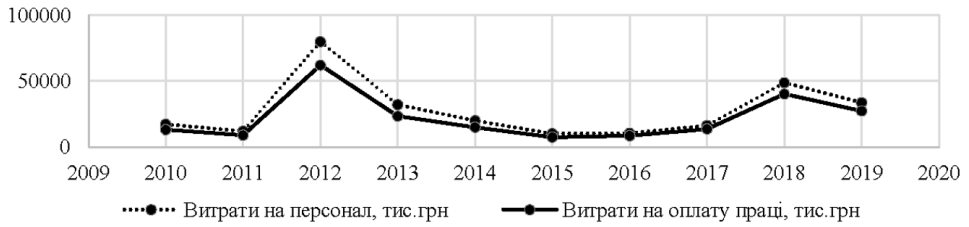
Figure 4. Share of personnel costs in total production costs of micro-enterprises, 2012–2019.



Personnel costs for companies in the field of photography were significant in 2012. (79,778.4 thousand UAH), the smallest were recorded in 2015 (10,098.2 thousand UAH).

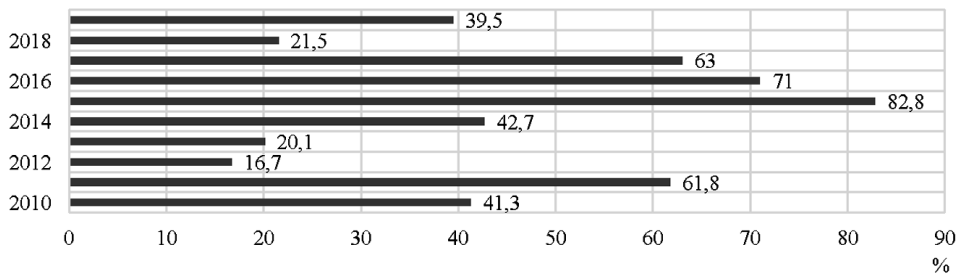
Labor costs in the field of photography are changing accordingly (Figure 5).

Figure 5. Trend in personnel costs and labor costs of medium and small enterprises, 2010–2019



A significant share in the total cost of labor falls on micro-enterprises: up to 82.2% in 2015 (Fig. 6).

Figure 6. Share of labor costs of micro-enterprises in total labor costs, 2010–2019



3. CONCLUSIONS

Thus, businesses in the field of photo services are now facing problems that are common to all and every businesses in a corona crisis and specific to this field. In particular, changes in the photographic technology used have led to a drop in demand for photo services in general.

“In times of crisis, the main limiting factors in the management decision-making process are time, information and costs. Assessment of what has happened and evaluation of what has been implemented to resolve the crisis situation can reduce their negative impact and improve the effectiveness of management decisions. Crisis situations should be considered primarily as opportunities, rather than as threats, and be a starting point in the development of the organization, rather than a reaction to negative phenomena and results” [12].

Modern conditions cause changes in the behavior of photo market operators. Photographers and service providers are increasingly exploring opportunities in niche markets to increase market value and customer base. Knowledge and specialization in sports, events, landscapes, wildlife and street photography are gaining in popularity. Photographers focus on aerial, newborn, pet, fashion and travel photography. Particular attention is paid to photojournalism.

This trend, in particular, helps sell services to the target audience and reduces operating costs. Working in niche markets allows photographers to set

relatively high prices for their services through specialization, thereby increasing profitability.

The distribution of photos on websites and social media platforms is expected to drive the growth of the photography market in the near term.

Websites and mobile apps such as Facebook, Instagram, Snapchat and Pinterest have led to increased image-sharing trends on these platforms to gain public acceptance and popularity among their target audience. Photographers are expected to benefit from this trend since individuals and organizations increasingly demand skillfully processed photos for media communications, public relations and other professional services. The increasing spread of the Internet in many developed and developing countries, especially among urban and younger populations, is further stimulating the demand for professional photographic services.

Trends in photography show what's really important to brands and their audiences today. They are also a great starting point for finding photo ideas and improving your portfolio.

Based on the described trends in photography, we can conclude: 2021 is a good time for those who have experience in nature photography, object photography and aerial photography. It should not be forgotten that technology is evolving continuously, and routine tasks are becoming less costly for photographers thanks to modern AI-based tools.

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ROLA I MIEJSCE MAŁYCH FIRM NA WSPÓŁCZESNYM RYNKU USŁUG FOTOGRAFICZNYCH

Streszczenie: oprócz problemów, wspólnych dla przedsiębiorstw w każdej dziedzinie zarządzania w kontekście kryzysu koronawirusowego, spadek popytu na usługi fotograficzne zarówno na świecie, jak i na Ukrainie spowodowany był zmianami w stosowanych technologiach fotograficznych. Dotknęło to głównie małe firmy, które mają znaczący udział w rynku usług fotograficznych. Przewiduje się, że do 2025 r. wartość światowego rynku usług fotograficznych wzrośnie do 44,07 mld USD, co będzie spowodowane reorientacją firm i ich wychodzeniem z kryzysu COVID-19. Na rynku ukraińskim obserwuje się spadek konsumpcji i podaży usług fotograficznych. Zmniejszają się również wszystkie wskaźniki działalności przedsiębiorstw świadczących usługi fotograficzne, tj. liczba przedsiębiorstw, liczba pracowników, wielkość produkcji, inwestycje kapitałowe itp. Aby zwiększyć bazę klientów i wartość rynku, fotografowie i usługodawcy muszą wykorzystywać nisze rynkowe. Do rozwoju rynku usług fotograficznych w najbliższej przyszłości przyczyni się upowszechnienie zdjęć na stronach internetowych i platformach społecznościowych oraz wykorzystanie nowoczesnych narzędzi opartych na sztucznej inteligencji.

Słowa kluczowe: rynek usług fotograficznych, mała firma, kryzys.

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