

REPORT
ON
TWO WEEKS OF INTERNSHIP I
Carried out on
(Website Building)

Submitted to

NMAM INSTITUTE OF TECHNOLOGY, NITTE
(Off-Campus Centre, Nitte Deemed to be University, Nitte - 574 110, Karnataka, India)

In partial fulfillment of the requirements for the award of the

Degree of Bachelor of Technology in
Artificial Intelligence and Machine Learning Engineering

by

(NAME OF STUDENT)
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Under the guidance of

(Mr.Sudesh Rao)

(Assistant professor Gd-II, Department of AI and ML)



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Certificate

*This is to certify that the “Internship I report” submitted by Mr./Ms. _____ bearing USN _____ of I year B.Tech., a bonafide student of NMAM Institute of Technology, Nitte, has undergone two weeks of internship during December 2022 fulfilling the partial requirements for the award of degree of Bachelor of Technology in **Engineering** at NMAM Institute of Technology, Nitte.*

Name and Signature of Mentor

Signature of Dean (Academics)

Acknowledgement

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Abstract

Definitions of photography

The Cambridge English Dictionary defines Photography as “the activity or job of taking photographs or filming”.

A brief history of key developments in photography

It was in 1814 when French physicist Joseph Niepce achieved the first photographic image using the camera obscura – a darkened chamber where images were projected by letting light enter through a small hole.



However, this technology was first used by early Greek and Chinese philosophers back in the 5th – 4th Centuries B.C!

Fast forward to today and the traditional photography jobs and equipment have faded, including photo processing workers, film lab technicians and photography equipment repairers, to be replaced by newer and more accessible digital technologies.

Introduction to the Industry

Nature of Business in the Photography Industry

Some photographers specialize in areas such as portrait, commercial and industrial, scientific, news, or fine arts photography. Portrait photographers take pictures of individuals or groups of people and often work in their own studios. Some specialize in weddings or school photographs and may work on location. For Example, portrait photographers who are business owners arrange for advertising, schedule appointments, set and adjust equipment, develop and retouch negatives, and mount and frame pictures. They also purchase supplies, keep records, bill customers, and may hire and train employees.

Structure of the Photography Industry

Companies within the photographic industry commonly provide still photography, digital photography and videography, including commercial, industrial, portrait, wedding and special events photography to name a few.

The Global Photography Industry

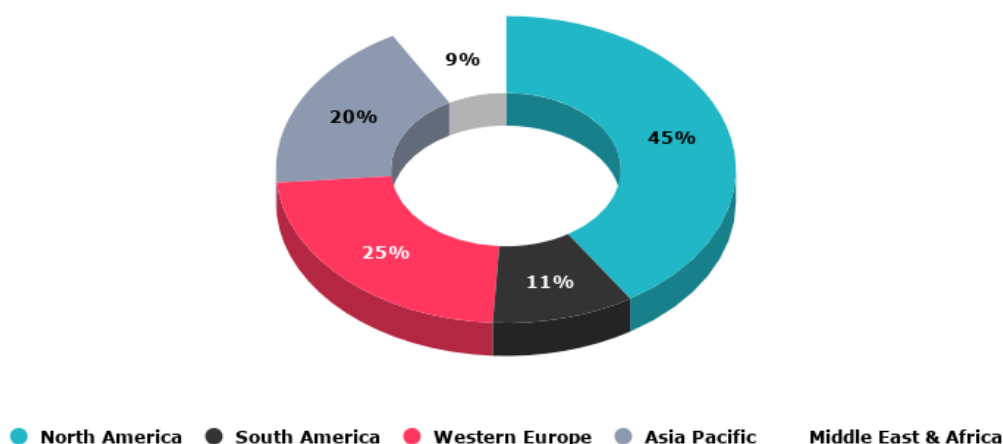


Fig: Snapshot of key industry stats

The photography industry is worth billions both in the UK and US and is among the most profitable of industries. Here's a snapshot of key stats for these markets:

| | UK | US |
|--|--------|---------|
| Profitability (as % of industry revenue) | 11.2% | 12.1% |
| Revenue | £1.7bn | \$6.5bn |
| No. of businesses | 8,119 | 12,458 |
| Annual growth | 2.2% | 2.5% |
| Forecast growth (19-24) | 1.8% | 1.8% |

Number of businesses

Unsurprisingly the highest concentration of photography businesses is in the capitals of both markets. In the UK, London is the most concentrated region as it is home to approximately 34.3% of industry establishments. In the US, New York is the largest market in terms of sales per establishment by state.

Since 2012, the number of photography businesses has grown steadily in both the US and UK markets, with the US seeing a much bigger increase in the number of larger firms (100+ employees). The UK market remains dominated by a larger number of small firms.

Annual growth

Between 2014-19, the industry grew at a rate of around 2.2% in the UK, boosted by increased advertising activity and a higher marriage rate. In the US, the industry grew at a slightly faster rate of 2.5%.

Forecast growth

It is expected that revenue will increase at a relatively slow pace of 1.8% in 2018-19 as demand is hindered by economic pressures and inflation. However, the marriage rate is forecast to rise marginally and this will contribute positively to the demand for photography.

The rising popularity of online photograph databases amongst businesses is expected to hinder growth.

Competition

Despite the low barriers to entry for the industry, there is a high level of competition and this is expected to increase. Technological developments and the falling cost of equipment threatens industry performance by making it easier for consumers to take their own photographs instead of having to rely on industry operators, so establishing a good reputation and building a loyal customer base is critical for those wanting to succeed.

Industry lifecycle

With both markets in the mature stage, technological changes have impacted the demand for traditional photography services such as film processing, allowing more innovative businesses to take advantage of the new opportunities created which in turn has stopped the industry entering decline.

Seasonal demand also has an impact with a much higher demand during the summer months, particularly for those specialising in weddings and outdoor events. There is less seasonal impact on commercial photography, particularly in fashion where campaigns change each season and there is a requirement for ongoing photography services.

Industry forecast

The industry in the UK is expected to grow by 1.9% year on year for at least the next five years. By contrast and having grown 1% on average since 2012 in the US, the long-term trend for the photography industry is a decline of 1.9% on average over the next five years.

In both markets, it's expected that demand for wedding and portrait photography will remain strong.

Technological advances will continue to impact the industry, providing new changes that allow customers to improve their own skills and perhaps helping to limit growth. Although this will also afford opportunities for new and existing photography firms to innovate.

Details of the Training Undergone

Different departments in the Photography Industry are :

Portrait photography

Portrait photography was effectively the first type of commercial photography. Portrait photographers must be highly skilled to be able to find ways to capture the client's personality and illuminate their character through an image.

Wedding photography

Wedding photography is highly competitive but big business and photographers in this area should be highly skilled in being able to capture and tell a story with their photographs. They are also expected to be able to edit and retouch the photos, with a fast turnaround time. Customers expect the highest quality images from their special day to keep for a lifetime.

Commercial and Industrial photography

Requiring a high level of technical skill, commercial and industrial photographers need to be able to shoot the highest quality images, which could be featured anywhere from websites and social media right through to billboards and magazines. Those in the commercial field may choose to specialise in areas such as food, architecture, fashion, products or similar and may employ photo stylists to help arrange props and prepare sets.

Other types of photography

Photojournalism: Photojournalists create pictures that contribute to the news media. This is a distinguished form of journalism that complies with a rigid ethical framework, demanding honest and impartial that tells the story in strictly journalistic terms.

Specialist photography: Photography that falls out of the above categories may include nature photography or art photography which again require that photographers have specific sets of skills to be able to capture images in the best light for their particular niche.

Careers in Photography

Some photographers specialize in areas such as portrait, commercial and industrial, scientific, news, or fine arts photography. Portrait photographers take pictures of individuals or groups of people and often work in their own studios. Some specialize in weddings or school photographs and may work on location. Portrait photographers who are business owners arrange for advertising, schedule appointments, set and adjust equipment, develop and retouch negatives, and mount and frame pictures. They also purchase supplies, keep records, bill customers, and may hire and train employees.

Commercial and industrial photographers take pictures of various subjects, such as buildings, models, merchandise, artifacts, and landscapes. These photographs are used in a variety of media, including books, reports, advertisements, and catalogs. Industrial photographers often take pictures of equipment, machinery, products, workers, and company officials. The pictures then are used for analyzing engineering projects, publicity, or as records of equipment development or deployment, such as placement of an offshore rig. This photography frequently is done on location.

Scientific photographers photograph a variety of subjects to illustrate or record scientific or medical data or phenomena, using knowledge of scientific procedures. They typically possess additional knowledge in areas such as engineering, medicine, biology, or chemistry.

News photographers, also called photojournalists, photograph newsworthy people; places; and sporting, political, and community events for newspapers, journals, magazines, or television. Some news photographers are salaried staff; others are self-employed and are known as freelance photographers.

Fine arts photographers sell their photographs as fine artwork. In addition to technical proficiency, fine arts photographers need artistic talent and creativity.

Self-employed, or freelance, photographers may license the use of their photographs through stock photo agencies or contract with clients or agencies to provide photographs as necessary. Stock agencies grant magazines and other customers the right to purchase the use of photographs, and, in turn, pay the photographer on a commission basis. Stock photo agencies require an application from the photographer and a sizable portfolio. Once accepted, a large number of new submissions usually are required from the photographer each year.

Photography training can include a wide range of topics and skills, depending on the level of expertise being targeted and the specific area of photography being focused on. Here are some common elements that might be included in photography training:

1. Camera basics: Understanding how a camera works, including exposure, shutter speed, aperture, and ISO.
2. Composition: Learning about the elements of composition, such as rule of thirds, leading lines, and framing, as well as how to balance and arrange visual elements in a photograph.
3. Lighting: Understanding how light affects a photograph and how to manipulate natural and artificial light sources to create the desired effect.
4. Post-processing: Learning how to use editing software to enhance and refine photos, including adjusting colour, contrast, and sharpness, and removing unwanted elements.
5. Genre-specific techniques: Depending on the area of photography being focused on, training may include specific techniques for portrait photography, landscape photography, wildlife photography, sports photography, and more.
6. Business skills: For those interested in pursuing photography as a career, training may include marketing, pricing, and other business skills necessary to run a successful photography business.

Overall, photography training is designed to provide students with the skills and knowledge necessary to capture beautiful and compelling images, as well as to refine those images through editing and post-processing techniques.

Internally, the industry has a high level of competition with pricing being a key competitive factor alongside the ability to meet deadlines.

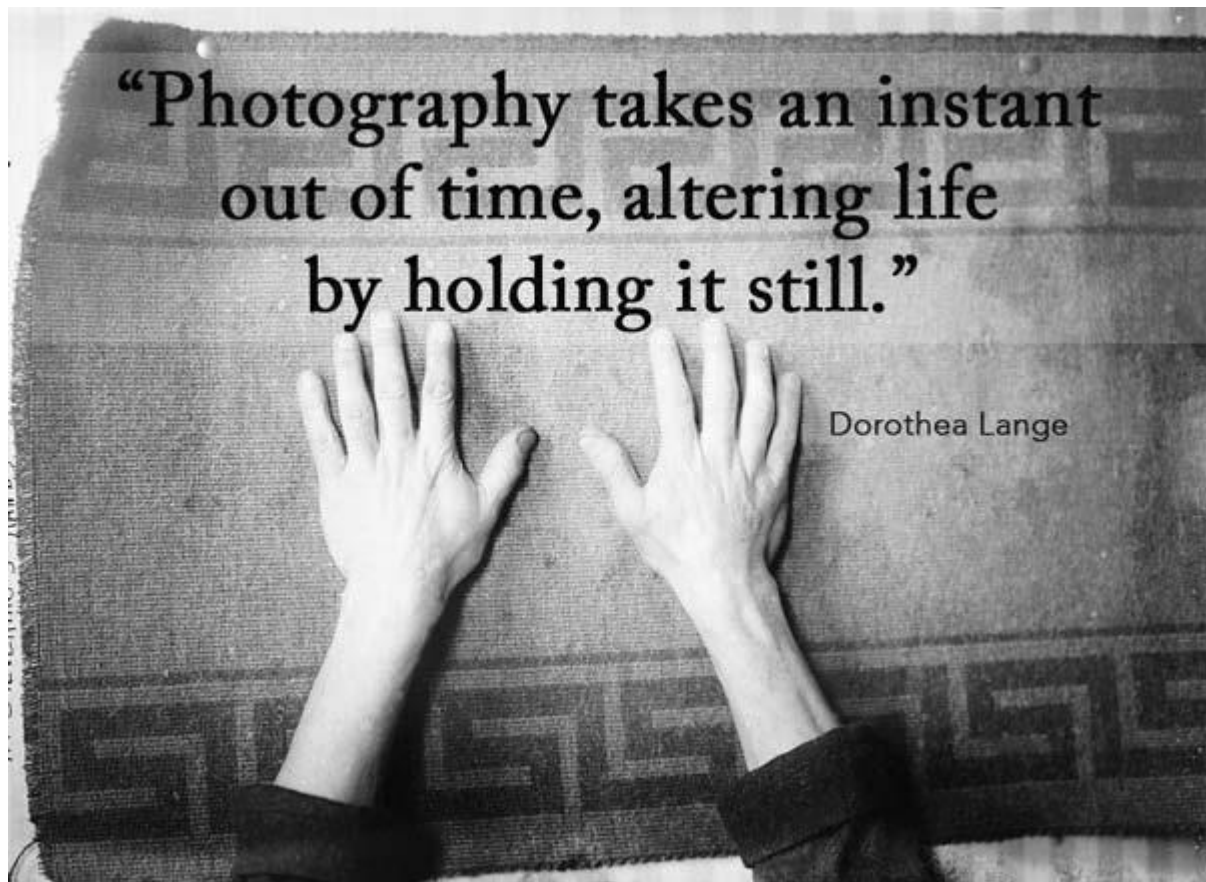
Externally there is also a high level of competition, this time coming from the falling cost of cameras and camera equipment, as well as the improving quality of smartphone cameras. This has resulted in a DIY photography economy, putting increasing pressure particularly on those providing portraiture services. Additionally, hobby and amateur photographers have entered the market due to the low barriers to entry, increasing competition in the private consumers' segment.

The rising popularity of stock photography is also a threat to the industry, as businesses turn to online image libraries to fulfil their visual content requirements rather than hiring an industry professional.

Additionally, there is the threat of loss of revenue due to digital copying, although this may be somewhat discouraged through forms of digital protection such as the use of watermarks and software encryption.

Conclusion

Overall competition is expected to remain high within the industry, with traditional players expected to leave due to being unable to keep up and compete in the changing environment in which they're operating. Additionally, pressure will come from more hobby photographers entering the market and the accessibility of quality digital and smartphone cameras. Whilst demand for high-quality photography will be less affected in the commercial market, pricing will remain a key competitive factor, as well as the ability to stay innovative and abreast of technological developments.



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