

Report on

How Bangladesh can become an outsourcing hub for global Visual effects and CGI industry

By

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ID – 15104129

An internship report submitted to the BRAC Business School in partial fulfillment of the

requirements for the degree of

Bachelors of Business Administration

BRAC Business School

BRAC University

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Declaration

It is hereby declared that

- 1- While pursuing a degree at BRAC University, I've submitted this internship report and this is my own unique work.
- 2- The report does not include any previously published or written content by a third party, unless it is properly credited with complete and correct referencing.
- 3- The report does not include any information that has been approved or submitted for any other university or other institution's degree or diploma.
- 4- I've acknowledged all major sources of information.

Student's Full Name & Signature:



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15104129

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Letter of Transmittal

January 2, 2022

To,

Md. Hasan Maksud Chowdhury

Assistant Professor

BRAC Business School

BRAC University

Subject: Submission of Internship Report

Dear Sir,

It gives me great pleasure to be able to present to you the internship report that I created based on my experience working with Million dreams Studios as a project coordinator. I consider myself lucky to be able to work in such a growing production house like Million dreams Studios. To compile my internship report, I have contributed my talents, time, and effort. I attempted to follow my supervisors' instructions and satisfy all of the course's criteria. This internship program allowed me to use my academic knowledge in a practical environment, which will undoubtedly benefit me in my future profession.

I'd want to thank you for all of your advice and for responding to all of my concerns on report writing, as well as for your support and guidance. For the writing of this report, I gave it my all.

If you find this report beneficial, please let me know. Any suggestions for my report would be gratefully received.

Sincerely yours,

Rafiul Kabir Tamim

ID - 15104129

BRAC Business School

Acknowledgement

First and foremost, I'd want to thank Md. Hasan Maksud Chowdhury, my internship supervisor and faculty member, for permitting me to choose an unique topic for my report. Throughout my internship, he gave me excellent advice and pointed me in the right way. I'm pleased that he was always accessible to answer my questions concerning my report, and with his assistance, advice, and recommendations, I was able to finish it successfully.

Until now, the work opportunity I had with Million Dreams Studios was a two-month experience. For me, it was a beneficial learning and practical experience that aided in progression of my career. I consider myself lucky to for the chance to work there and meet so many talented artists. I'd want to express my appreciation to everyone who assisted and led me in preparing my internship report. I was able to effectively complete this report with their assistance and instruction.

I'd also want express my gratitude to Mr. Nohel Shakib (Director/Project Manager, Million Dreams Studio) for his support. I'm also grateful to Million Dreams Studio's VFX and motion graphics team for contributing their important knowledge and market insights, which helped me perform this study.

Finally, I'd want to express my gratitude to all of my faculty members who have made a substantial contribution to whatever success I've had in the academic journey. They served as my mentors and supplied me with significant business knowledge that I can now use effectively.

Executive summary

The worldwide visual effects and CGI business has been significantly impacted by the recent transformation in the streaming media and entertainment sector. The global demand for visual effects is growing at a rapid pace, as is the market size. Bangladesh's local streaming media and entertainment business is booming, thanks to the recent development of 3G and broadband internet access. India and Taiwan are the most popular outsourcing destinations for Hollywood post production work in the worldwide VFX business.

The entertainment industry has grown dramatically in recent years, to the point that it now accounts for 2.1 trillion dollars in revenue. The visual effects sector is worth 26.64 billion dollars, whereas the computer graphics industry is worth 16.64 billion dollars. Many emerging nations have already established a high-quality visual effects and computer graphics industry, which has aided their economic progress. These nations can develop high-quality visual effects and computer graphics at a reasonable cost because of their low labor expenses.

This study is aimed to determine how we might use Bangladeshi labor force with very rudimentary computer skills to work in the global visual effects industry, allowing us to compete with neighboring and other Asian nations. Also, how industry veterans have succeeded in this field while working from Bangladesh, as well as the pitfalls and remedies.

Table of Contents

Chapter – 1: Overview of the internship	1
1.1 Student Information	1
1.2 Internship information.....	1
1.2.1 Period, Company, Department and Address:	1
1.2.2 Internship Company Supervisor’s Information: Name and Position	2
1.2.3 Job responsibilities.....	2
1.3 Internship Outcome	3
1.3.1 Contribution to the Company	3
1.3.2 Benefits from the internship.....	3
1.3.3 Problems and difficulties	4
1.3.4 Recommendations	5
Chapter 2 – Organization part	6
2.1 Introduction	6
2.1.2 Objective	6
2.2 Overview of the company	6
2.2.1 Services	6
2.3 Management Practices	8
2.3.1 Organizational structure	8
2.3.2 Administration	8

2.3.3 Leadership Style	9
2.4 Marketing practices	9
2.5 Financial performance and accounting practices	10
2.5.1 Financial Growth	10
2.6 Operations Management and Information System Practices.....	10
2.6.1 Works on review	10
2.6.2 Use of automation	10
2.6.3 Social Media Engagement and online portfolio.....	11
2.6.4 Relationship with other studios and agencies	11
2.6.5 Research and development	12
2.7 Industry and Competitive analysis	12
2.7.1 Company analysis according to Porter’s Five Forces Study	12
2.7.1 SWOT Analysis of Million Dreams Studio.....	15
2.8 Summary and conclusion	17
2.8.1 Summary	17
2.8.2 Conclusion.....	17
2.9 Recommendations	18
Chapter 3 Project part - How Bangladesh can become an outsourcing hub for global Visual effects and CGI industry.....	19
3.1 Introduction	19
3.1.1 Literature review.....	20

3.1.2 Objective	23
3.1.3 Significance of the issue.....	24
3.2 Methodology.....	25
3.3 Findings and analysis.....	26
3.3.1 Questionnaires and data.....	26
3.3.2 Analysis of survey results	31
3.3.2 Analysis of interview with artists	33
3.3.3 Freelance sectors with possibility for Bangladesh.....	34
3.4 Summary and conclusion	37
3.5 Recommendations	37
References.....	39

Chapter – 1: Overview of the internship

1.1 Student Information

Name: Rafiul Kabir Tamim

ID: 15104129

Program: Bachelor of Business Administration (BBA)

Major: E-commerce

Minor: Computer Information Management (CIM)

1.2 Internship information

1.2.1 Period, Company, Department and Address:

On September 1st, 2021, I've started my job at Million Dreams Studio. Million Dreams Studio is a growing film/television studio in Bangladesh. The studio began operations in 2020. The address of the company is Road 8/A, House 479, Baridhara DOHS 1206, Dhaka, Bangladesh.

1.2.2 Internship Company Supervisor's Information: Name and Position

I'm a member of the Motion Graphics and Visual Effects department's project management team. Nohel Shakib, the Director/Co-Founder/Project Manager of Million Dreams Studios, supervises the project management team. Mr. Nohel Shakib assigned the majority of my work. He was quite helpful in making me grasp projects so that I could accomplish them more quickly.

1.2.3 Job responsibilities

- Keeping track of the project plans and progression, working hours and the deadlines.
- Help project manager for creating the project plan.
- Preparing the presentation and necessary materials to approach the clients.
- Creating the technical pipeline between the VFX and motion graphics team.
- Ensuring the teams are getting necessary materials to complete a project.
- Develop strategies to keep the pipeline procedural and changeable at any point.
- Keep the documentations of the project and related things.
- Assign the team members accordingly.

1.3 Internship Outcome

1.3.1 Contribution to the Company

I made a contribution to Million Dreams Studio as a full-time employee by assisting every team as a project coordinator. I had a certain tasks and responsibilities to perform in order to contribute to the overall success of the organization. My project manager on the other hand, took into account my previous work experience in the entertainment industry and assigned me a large number of responsibilities while I was on the job. I had experience in graphics design, games and advertisement and I was assigned the duty of creating and managing the vfx and motion graphics pipeline. Also, during the time at Million Dreams Studio I've also communicated and contacted with clients like Bajaj Bangladesh, ICT division of Bangladesh, MetLife Bangladesh. I've also handled international clients like Blank Canvas Studio and Alive Studios from Australia. I also managed the documentation of all the resources of the projects and I also played the role as on set visual effects supervisor.

1.3.2 Benefits from the internship

Being a recent graduate credit requirement for BRAC Business School this job aided me in obtaining the four credits I needed for my undergraduate degree. I was always passionate about the entertainment industry from the very beginning. I was able to get practical experience about production on set shooting, giving directions as visual effects supervisor and also gathered experience by sharing different issues with my colleagues and supervisors. I have improved my

skill in Autodesk Shotgun for project management and live tracking and monitoring the status of a project. I also have to learn some new other software like Foundry Nuke and Foundry Modo. Moreover, with the assistance of my project manager and motion graphics supervisor I was able to focus on the best quality of outcome and work properly on my tasks. This job opportunity aided me in learning more about the local entertainment and advertisement industry as well as the global visual effects industry. With the continuous reporting and communication with my seniors I was fortunate to have a more comprehensive grasp of the need of maintaining the reliability and importance of completing the tasks on time. I have also gathered the skill of negotiating with the clients and the best ways to approach a client with brief quote. I also learned to work under pressure. Millions Dreams Studio have provided me a fantastic opportunity to work with my passion and allowing me to work with some of the most experienced and specialist artist of Bangladesh.

1.3.3 Problems and difficulties

One of the main problems that I faced is that the team size is not sufficient enough to deal with a large project. It was very difficult for me to keep track with the schedule. Sometime client expectations and timelines are quite absurd and I have to change the pipeline and the projects goals again and again. Also because of the Covid-19 situation on set filming is now quite difficult. We have to follow and maintain strict restrictions during on set shooting and managing the team properly under this heavy restriction during on set is quite difficult. Also, the main problem that is very common in the entertainment industry is the extended working hours and late-night works. During heavy rush or projects most of the team members have to work overnight and stay at the office. This are some main problems I've faced during my job period.

1.3.4 Recommendations

Million Dreams Studio is recently trying to get into the global visual effects industry. They are taking huge number of projects so they also need a bigger team to handle the projects properly. They can allow fresh graduates to explore the entertainment industry by engaging with their team. They can also move into a new office with more space. A new pc with higher configuration can be really helpful for rendering which will definitely help to deliver rush projects.

Chapter 2 – Organization part

2.1 Introduction

Visual effects industry in Bangladesh is quite new and in a blooming stage. The current revolution in the streaming media and entertainment sector has had a huge influence on the global visual effects and CGI industry. Bangladesh's local streaming media and entertainment business is booming, thanks to the recent development of 3G and broadband internet access. There was too much work pressure during my time in the workplace. However, this job helps to give me a proper environment with a real-world experience. This environment has taught me many things about the market and also, I got chances to implement the skills.

2.1.2 Objective

One of the main objective of this report is to explain how I've implemented the knowledge of project management from my e-commerce major subjects into a real-life work environment.

Also, what practical knowledge I have acquired by real world work experience.

2.2 Overview of the company

2.2.1 Services

Since 2020, Million Dreams Studio has been working in the advertisement business and also putting their creative abilities to use on a variety of platforms like visual effects and motion

graphics industry. They provide one-stop solution for any kind of video content. They can handle any elements of the advertisement like storyboarding, production, post-production, visual effects and motion graphics. Recently they have focus on the global visual effects market and they have started a new visual effects team fully dedicated on the projects from international market. They are one of the most fastest growing film/television studios in Bangladesh. They have already worked with giant organization like Bajaj Bangladesh, MetLife Bangladesh, ICT division of Bangladesh, ACI, Nestle Bangladesh, Robi and many more. They are specialized on creating eye catching advertisement and other visuals for marketing which helps clients to increase the visual engagement with their customers. Million Dreams Studio is a firm believer in offering clients with innovative and unique solutions based on ideas base on creativity and concepts which are always one step ahead in terms of technological advantage. It also believes that brandings of the companies should be defined with some eye-catching and unique concepts by which the viewers and customers will experience an exciting and engaging contents. A successful bradding always creates a positive impression and which will directly impact the growth of the company. This studio has also provided services for the international visual effects market. This service includes rotoscoping, green screen keying, tracking and match moving and CGI compositing. They have worked with renowned VFX studios like PlanB VFX Ltd, Award winning VFX supervisor Todd, Graves film production, Canada, Caribbean tales media group, Canada. They have successfully completed rotoscoping and keying tasks for these clients.



Fig – 2.1



Fig – 2.2

2.3 Management Practices

2.3.1 Organizational structure

Production team

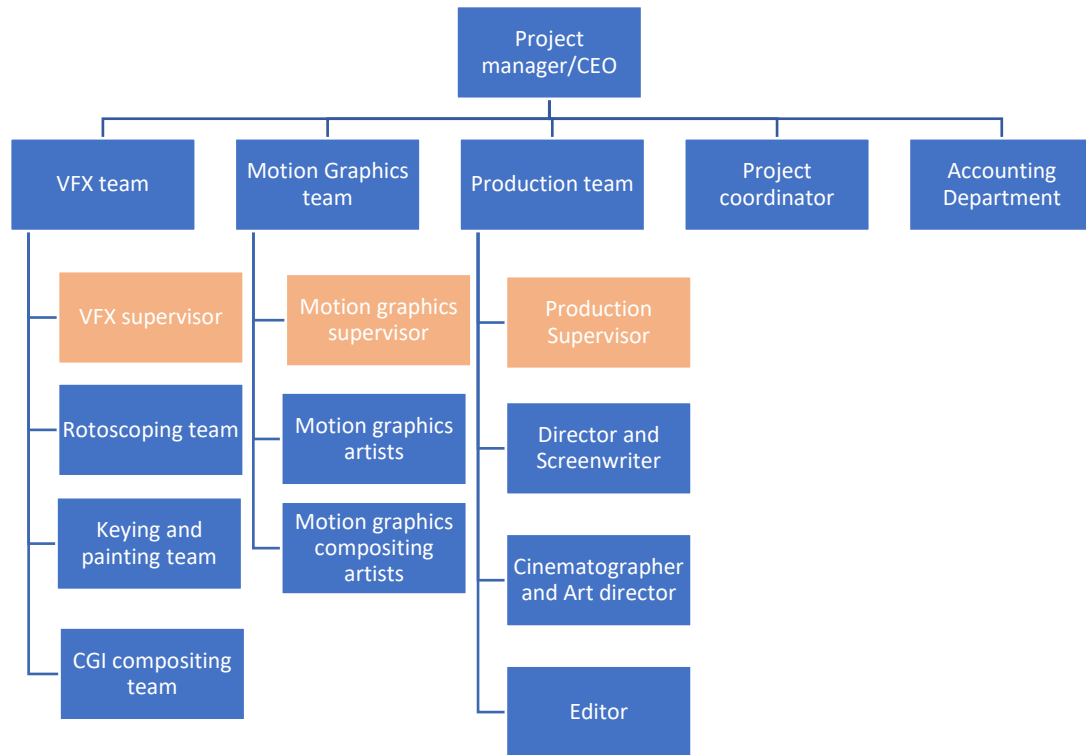


Fig – 2.3

2.3.2 Administration

Million Dream Studios was an initiative of one and only owner of the studio Mr. Nohel Shakib. He has experience in the entertainment and music industry over a decade. He also plays the role of project manager for this studio. Under his supervision all other production teams run their roles. There are three supervisors and one project coordinator directly work under him. All the artists' work under this supervisor in separate teams in their respective departments.

2.3.3 Leadership Style

This studio follows a democratic leadership style in their management process. Every project and approach are discussed with team leaders at first and the team leaders then discuss various aspects of this matters with their subordinators. This helps this organization to grow faster because all the artists and team leaders have experience in this industry for a long time and they all have a solid understanding of this entertainment field and all of its aspects. So, the project management and delivery become quite handy as it's been discussed with the whole team from the very beginning.

2.4 Marketing practices

The studio uses creative and innovative methods to make certain that their brand is flawlessly presented to the clients and is distinguishable and appealing from others. In order to ensure that the firm have been collaborated with some of the most famous influencers in Bangladesh and have also running marketing campaigns on social media platforms. The studio has a specialized team with creative talents who handle tasks like copywriting, marketing content planning etc. This team also collaborates with the clients with questionnaires to understand the client needs and give them suggestions and ideas about how they can approach for further services. This team also maintains a strong relation with the clients and the influencers.

2.5 Financial performance and accounting practices

2.5.1 Financial Growth

After the studio has started its journey in 2020 it's still in a growing stage. In the meantime, it has made a remarkable growth. From the beginning of this studio, it has ensuring that all customers are completely pleased and they always keep a good relation with the clients which helps with the continuous flow of projects.

2.6 Operations Management and Information System Practices

2.6.1 Works on review

The departments always discuss with the whole team before delivering the final project to the clients. Same goes for any kind of revisions and implementations of ideas. This helps to ensure the best quality of works in the output. They take reviews and feeds from the clients on each and every projects. These reviews are documented in the server for future development. This kind of approaches helps the teams to work on the lacking and increase the productivity and the final output of future projects.

2.6.2 Use of automation

Use of messaging bots, recording tools and other automated task management technology is very common in Million Dreams Studio. This kind of technologies are used for automated answering process, filtering spam messages, documentation of projects and client briefs with voice to text technology. The chat bot has a significant and direct impact on the development in the communication with the clients and finding and approaching the new clients. These kinds of

technologies helped Million Dreams Studio for engaging into market more effectively and accurately capturing a niche market of client base. They also use data visualization to filter the data and segment different area of interest to filter out the market and this helps them to find out the potential client base very easily.

2.6.3 Social Media Engagement and online portfolio

Million Dreams Studio has been actively maintaining their update of portfolio in social media and in YouTube. After finishing each of the client projects and when the documentations are done 1-2 minutes of video with cutscenes from the original project is been combined to make a commercial demo video for that project. All this demo reels are published into the YouTube channel, social media and stored into google drive with private links only for sending to the clients. All this demo reels are published with a proper permission from the clients.

2.6.4 Relationship with other studios and agencies

This company maintain a regular communication and corporate relationship with the fellow studios and agencies. They have recently got into an official partnership with DreamcastBD one of the biggest Advertising agencies in Bangladesh. These communications help them to keep track on the market demand and to get new projects up ahead.

2.6.5 Research and development

Million Dreams Studio always focus on innovation and business development. During the idle time the team leaders always assign the artist with some new resources to learn. This studio is also planning on to get in local and international 2d animation and cartoon market. The team leaders are arranging a pipeline for that and they are also providing training to the artists during the idle time. Also, they are making more progress on the demo reel whenever they can because it's the most vital element to approach a client in the entertainment industry. They have recently added architectural visualization and 2d animation into the demo reel and just after two days the reel have been published, they have managed to contact with two giant architecture farms from Australia.

2.7 Industry and Competitive analysis

2.7.1 Company analysis according to Porter's Five Forces Study

The Porter Five Forces Model is a structure that is used to assess characteristics that affect competitiveness and other aspects that affect agreement ability. This is an understanding of the occupation and the methods used to gain a competitive advantage. Existing businesses' dispute, the threat of new participants, and the danger of replacement things are all discussed inside corporate components.

Competitiveness and rivalry

Recently the entertainment industry has bloom in Bangladesh and with the growth of this industry the number of agencies and advertisement studios are growing at the same pace. The

competition is high in case of advertisement industry but few of the studios are specialized in 3d animation and visual effects. From that perspective Million Dreams Studio have a significant advantage in the market. They are targeting very sophisticated type of client base who actually prefer high quality outputs. In this segment competition is not that high.

Threat of new market entrants

The number of skilled artists is increasing in Bangladesh because of the market demand and availability of free resources. The number of media agencies and studios are also growing. Though Million Dream Studios have earned a tremendous reputation among the clients and have well communication and connection but there is always the possibility of new market entrants. As a result, the risk of new market entrants is considerable in this instance.

Supplier Power

The main suppliers of the for the studios are software and hardware companies. There are a huge variation of software's and there are also lots of alternatives. Also, the number of vendors and companies for software and hardware's are huge. As a result, the suppliers' bargaining strength is diminished.

Threat of substitutes

As mentioned above the studio have huge competition in the market. There are other freelancing agencies and individuals working in this sector. But very few of the competitors are with this advance level of skills and creative potentials. Most of the studios in Bangladesh and all over the world prefer quantity over quality. So, the client base with the necessity of very sophisticated

and quality results is very niche. Though because of the growing numbers of skilled artists the substitutes pose a significant threat.

Buyers' bargaining strength

As Million Dreams Studio is focusing on high quality works and only on bigger projects, they are already one step ahead from the other agencies. Also, there are very few studios who can provide and handle high quality and bigger projects. So, the bargaining power of buyers are low.

In the entertainment and advertisement there are factors that have significant impact on the possibilities of success and sustainability. First of all, the communication and market reach. A studio has to always keep excellent communication with the clients and also have to invest on creative contents for the engagement with new viewers. Also, they have to arrange the teams with proper pipeline and guidance with relevant team leads which is necessary for the best outcomes with the available resources. According to the analysis of Million Dreams Studio we can conclude that this studio is working on a very sophisticated and niche client base. So, they have less threat of gaining new competitor at this time. But keeping up the creative output and client engagement is highly necessary because of the competitive market. To keep the dominance on this field they have to ensure proper client management and viewer engagement.

2.7.1 SWOT Analysis of Million Dreams Studio

The examination and outcomes of Strengths, Weaknesses, Opportunities, and Threats of an organization will be included in a SWOT Analysis. As a result, we'll examine the four primary segmentations to evaluate if they have a promising future.

Strengths

- Experienced and strong management
- Highly skilled artists in every department
- Ensured friendly and flexible work environment for the employees.
- Proper supervision on every team
- Excellent communication and engagement with the clients.
- Significant improvement in company portfolio within a very short period of time.

Weaknesses

- Insufficient number of artists.
- Huge work pressure on employees.
- No proper salary growth structure for the employees.
- Slow growth rate

Opportunity

- Huge engagement and capture of client base.
- Working on a fairly new in local but worldwide demanding field like VFX
- Got communication with huge number of international clients.
- They have strong teams with skilled and experienced members.

Threats

- Main threat is the unstable situation on entertainment industry due to the pandemic.
- Possibilities of high competition and new entrants in market

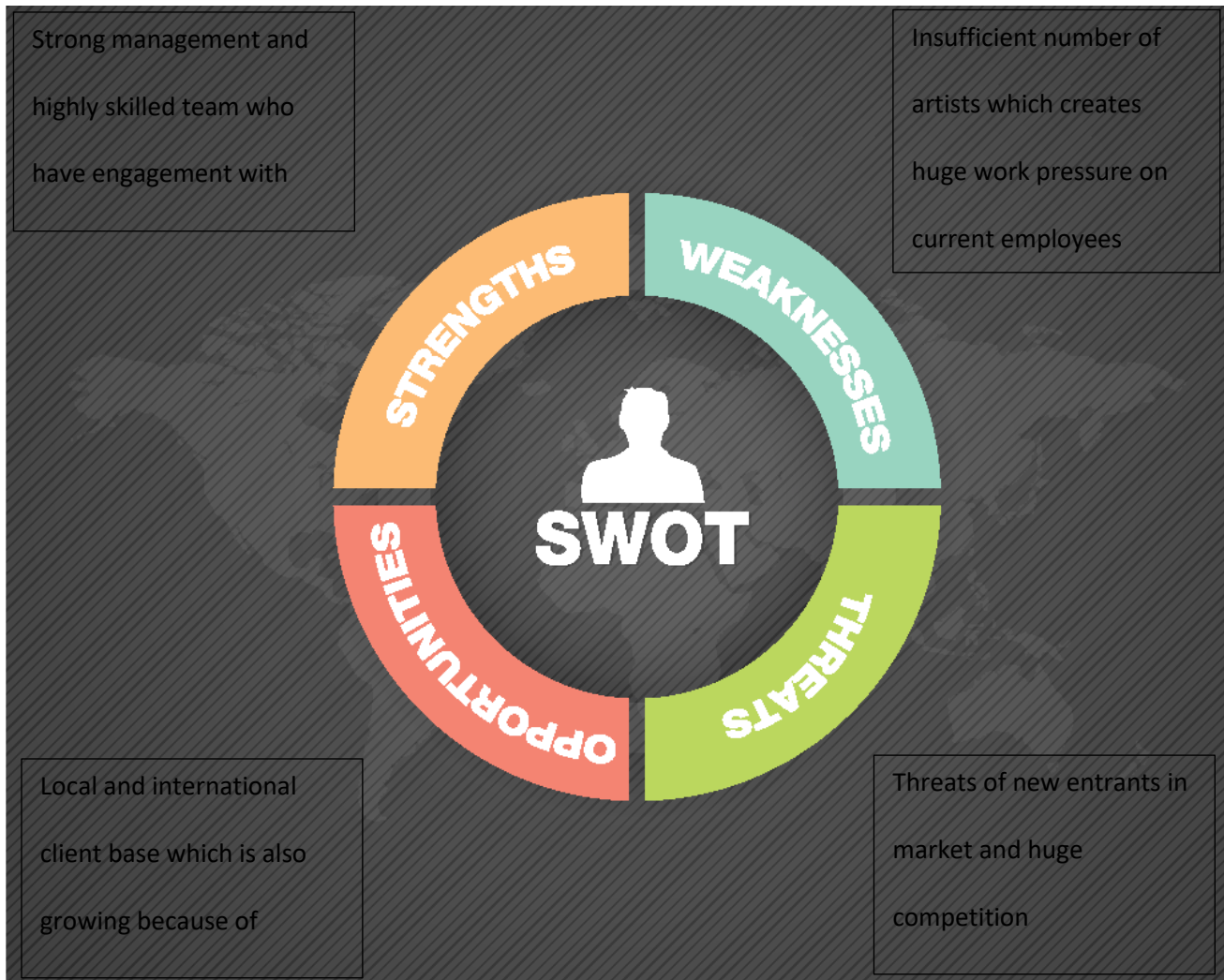


Fig – 2.4

2.8 Summary and conclusion

2.8.1 Summary

Million Dreams Studio has done a tremendous rapid expansion in a short amount of time. From the very beginning of the journey, it has been approaching with success and client satisfaction. The studio has achieved significant progress in developing connections with local and international clients. It has also developed connections with well-known influencers and also government agencies. The studio has created an easy to understand and presentable framework of modern advertising and media that presents every facet of digital advertising in a very simple and comprehensive way to the clients. To assure excellent quality and keep up the amazing achievements is having developed its teams in a well-balanced manner which is creating a direct impact on customer satisfaction and the revenue generation. Million Dreams Studio always emphasizes on visionary ideas and creative development. Recently they are trying to enter into the global visual effects and CGI market. They are already working on creating an international quality visual effects studio. They are trying to capture the marketplaces of global visual effects jobs and also creating a stunning portfolio to ensure the client engagement in the global visual effects market.

2.8.2 Conclusion

Million Dreams Studio is a rapidly growing advertisement studio in Bangladesh. After being established in 2020 the studio has swiftly seized the advertisement market with their creative aspirations and excellent service to devoted client base whose main preference are mostly high end and bigger projects. Though the studio is growing smoothly but in terms of producing larger

financial outcomes and also to compete against the leaders in the market in this sector they have a long way to go.

2.9 Recommendations

These are my recommendations for Million Dreams Studio –

- They need to increase the team size as they are planning to get into the international visual effects market. Also, during any bigger projects there is a huge pressure on the artists. Increasing the team size will help to balance this workload.
- They need to invest more on online marketing. They have to invest more on search engine optimization and online marketing.
- They can create some breakdown videos of the portfolio reel which will give the clients ideas about the pipeline and the creative ability of each team.
- As they have some excellent and experienced artists in the studio they can run a training program on topics like visual effects, advertising, motion graphics etc.

Chapter 3 Project part - How Bangladesh can become an outsourcing hub for global Visual effects and CGI industry

3.1 Introduction

Visual effects are the process of creating elements using the processing of imaginary through computer. Filmmakers and directors often tend to create shot that might not be possible or cost efficient to shoot in real time. VFX is process of combining the CGI components into the live action scene to generate a full realistic graphics footage. The demand for high quality contents is increasing in the entertainment industry and this is one of the major drivers behind the growth of the visual effects market worldwide. Recently there is bloom in the popularity of video streaming services like Amazon Prime, Netflix, HBO max, Disney plus and may more. Devices with high display capacity is also been used to stream these contents.

The creation process of Visual effects and CGI is such a labor-intensive process. It is very frequent that this works is divided across different studios and individual of different nations and continents. Today use of visual effects and CGI is very common in every aspect apart from the movie industry like industrial design, medical visualization, education, architecture etc.

The development of numerous parts of visual technology (for example motion related pictures, color, sound, and technologies used in films) in the west has mirrored the history of animation. The worldwide visual effects industry's attention has migrated from the West to Asia. 90 percent of all American television animation is expected to be created in Asia. A developing trend in the Asian visual effects business is a greater emphasis on the creation of indigenous animation material for television as well as animated films. Bangladesh's visual effects and animation business has shown in a short period of time, to be a promising area. The huge workforce that is

available in Bangladesh can be used to train up for the visual effects outsource jobs. Some of the prep works that are needed for visual effects often requires very preliminary level of knowledge of computers. Which creates more possibility to establish the visual effects industry in Bangladesh.

3.1.1 Literature review

Animation is the display of static pictures that are interconnected to give the sensation of movement, a rapid paced sequence was used. In the realm of animation, movement is extremely important. When one research on animation they should carefully put a strong emphasis on movement (Malpas, 2014). Animation is a type of art in which the author has complete control over the look and characters and items in the scene that will move. This mode of communication is frequently employed to study the link between the representations of media sectors and cultural identity articulation, as Yoshida (2008) suggests. It's been stated that animation got its own way of conveying message, codes and procedures for communicating that are distinct from those used in movie with live action and other forms of entertainment. This provides artists with unimaginable flexibility, which, when properly utilized, allows them to produce works that are really unique (Gleicher, 1999). The use of animation in films, television (TV) shows, and ads increases the beauty of storytelling. Because visual effects or animation improves the impact of the video, interest, and the standard of production. It has been standard preparation for television commercials (TVCs) to include any type of animation, motion graphics or visual effects of some sort. Because animation creation is such a labor-intensive process, work is frequently divided

across nations and even continents. Because animation is simple to dub, it travels well and compared to live-action drama, has a significantly smaller geographical aspect (Tim, 2011)

The CGI and visual effects industry in Bangladesh are in quite a young stage. There has been very little expansion of the CGI business because there are just a few participants in the market (thefinancialexpress, 2019). The CGI industry in Bangladesh was very little known and there was no animation or vfx institute until recently. Now some institutes are providing CGI and animation training along with degrees in some cases with the assistance of other nations such as India, Malaysia, the Philippines, and Singapore such (Md. Baharul Islam et al, 2013).

Recently many Bangladeshi artists are working in Hollywood blockbusters and in many other renowned visual effects and game studios throughout the world. Among them Wahid Ibn Reza who works as a production manager on numerous superhero films in Hollywood, is presently working on Marvel Studios' highly anticipated feature "Spider-Man: No Way Home." (The daily star, 2021). New artists and visual effects enthusiasts can use the internet to learn about the cg industry so that they can catch up later. A big drawback for this industry to enter into the international market is the lack of PayPal, the most well-known global online payment service provider but nowadays there are some alternative methods for payment which paves the way for the industry professional to connect with international clients easily (The Daily Star, 2021).

According to statistics, the animation and graphics industry contributes over 40% of Bangladesh's total information and technology (IT) exports. Experts believe that animation sector of Bangladesh has matured to the point where it would see a significant volume of exports in the future, Mr. Khan Monjurul Islam, director of marketing at Visuals Soft Ltd, says.

The basic works like rotoscoping, clean plating, matte-painting that are needed in the global VFX industry don't need so much technical knowledge. Those who are interested in learning rotoscoping and animation do not need to be familiar with a wide range of software. In reality, they must learn through a variety of other procedures (Dhakatribune, 2018). The CGI animation and VFX industry is blooming throughout the whole world. Recently there are some renowned studios in Bangladesh that have also established their VFX departments to get in the global VFX industry. New artists are also entering into the market and people now know much about the global VFX industry. The discussions mentioned above suggest that there is a significant possibility for artists to get into the global VFX market but there are also some major drawbacks that are holding these possibilities. For animation, CGI, visual effects, publishing on a computer, architectural design, and 3D character modeling are among the professions involving animation and services Bangladesh was chosen as the location for the outsourcing., Bhuiyan claims that (2009).

In Bangladesh, there are over 100 graphics and animation firms (Islam, Shamsuddin, and Chowdhury, 2013), with around 50 of them are doing freelancing works for the international studios. The visual effects market in Bangladesh is in a stage of development and new entrants are about to enter into the market. Animation is becoming more popular in Bangladeshi films and television commercials. Ogniroth Studios, Cartoon Bangladesh, The Illusionist BD, Greenfield Toons, Kento Studios, Pixel Works, Sketch Studio, Toon Bangla, Maverick Studios, and Bangi Productions are some of the prominent animations and VFX service providers. Also, there are currently no direct suppliers for the animation business in the nation. All software and hardware are purchased from a third-party vendor in another country (Tarannum, 2011).

3.1.2 Objective

Bangladesh is one of the most developing economies in the world with a huge number of active labor forces. The recent revolution of the streaming media and entertainment industry has created a significant impact on the global visual effects and CGI industry. The global need for visual effects is increasing day by day along with market size. With the recent development of 3G and broadband internet service in Bangladesh the local streaming media and entertainment industry is also blooming. In the global VFX industry India and Taiwan are the favorite outsourcing destination for Hollywood post production work. The cost saving and maintenance of industry grade production standards have made these countries to be a preferred outsourcing location.

In similar ways by using the vast labor force, Bangladesh can also be a destination for outsourcing works of global visual effects and CGI. Most of the outsource work for this industry requires very basic computer knowledge. This is why with some basic training and guidance there is a huge window of opportunity in Bangladesh to use the labor force for getting into the global visual effects and CGI market. Due to the huge number of available workers, there is a potential advantage of creating international quality of visual effects and CGI with a very competitive costing. The main objective of this report is how we can use our labor force to become an outsourcing hub for global visual effects and CGI related works and what are things we should keep in mind to introduce and expand this new industry in Bangladesh.

3.1.3 Significance of the issue

The entertainment market has evolved significantly since recent years and has turned into a 2.1 trillion USD market. Among which the visual effects market holds a market of 26.64 billion USD and the CGI industry holds a market cap of 16.64 billion USD. Many developing countries have already created a high-quality visual effects and computer graphics sector, which has benefited their economic development. Because of their cheap labor costs, these countries have the ability to produce high-quality visual effects and computer graphics at a reasonable cost. The visual effects business is quickly becoming an integral aspect of filmmaking, and studios with cutting-edge work has become an important part of global VFX pipeline.

Demand for animation, visual effects, and video games has risen as a result of the expansion of the worldwide expansion of electronics sports industry, the accessibility the internet with low cost, the accessibility of smartphones, and the expanding popularity of video streaming services. Furthermore, the need for visual effects and motion graphics material to enable imaginable experiences like augmented and virtual reality is skyrocketing. We're seeing more and more animation, visual effects, and video game creation taking place on a worldwide scale. Production activity is growing more global, with nations and regions giving tax benefits, subsidies, financial assistance, and regionally cheap labor costs, among other things, and firms saving costs by establishing facilities in these areas.

This research will help to find out how we can use the labor force of Bangladesh with minimum knowledge of computers to work for the global visual effects market so that we can compete with the other neighboring and Asian countries. Also, how the industry veterans have achieved

success in this industry by working from Bangladesh and also the drawbacks and solutions for that.

3.2 Methodology

The main research methodology would be collecting data from the artists working in the entertainment industry and mostly the students of Bangladesh through questionnaires or direct interviews online. My research would be mainly based on qualitative data.

The questionnaires to the students will be mainly on if they are familiar with the global VFX and CGI market, if they are aware about the growing VFX market in Bangladesh, do they got basic skills on computer, if they are interested to work in global visual effects and CGI industry, if a free training program is conducted with a task-based approach are they interested to join that etc.

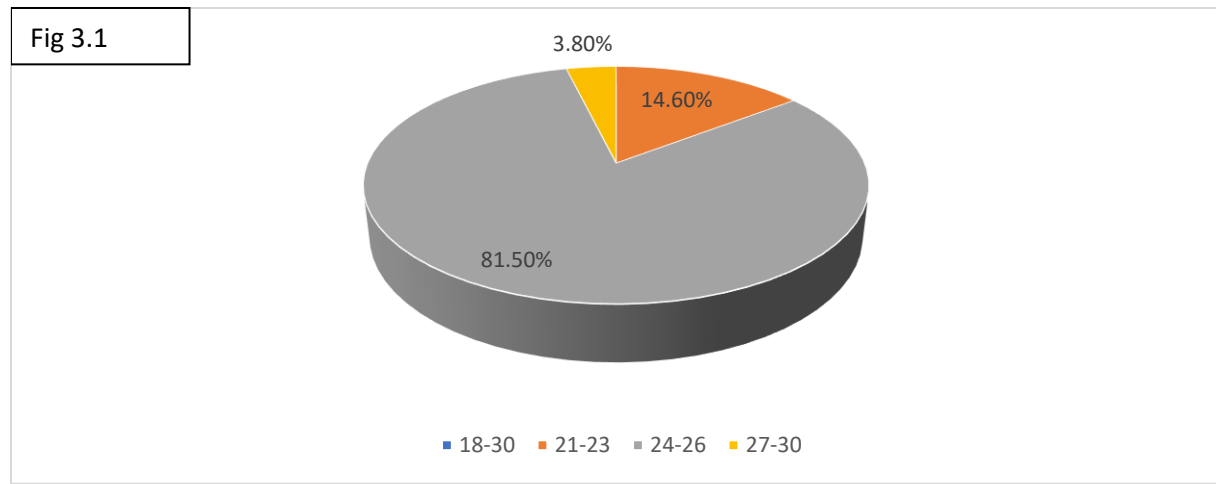
For the artists who are working in the Bangladeshi visual effects and CGI market would be like are they self-taught artist or the have received training from any institute, how they started their career into this industry, what are their thoughts on the prospects of Visual effects and CGI market in Bangladesh, what are the problems they are facing in this industry by working from Bangladesh

3.3 Findings and analysis

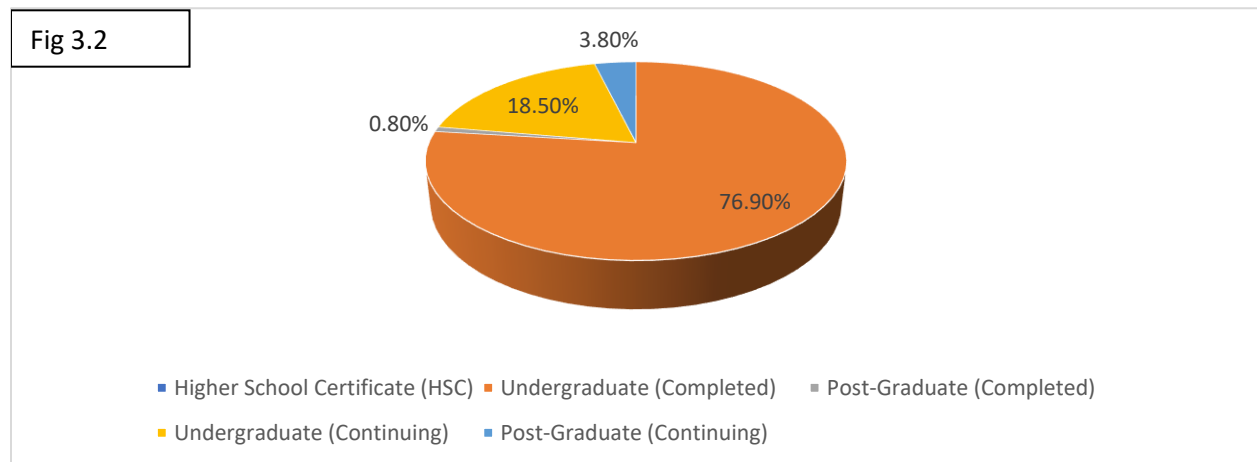
I have conducted a survey on the students and fresh graduates about their interest on visual effects industry and how much they are likely to train themselves to work in real life visual effects projects and pursue career in this field.

3.3.1 Questionnaires and data

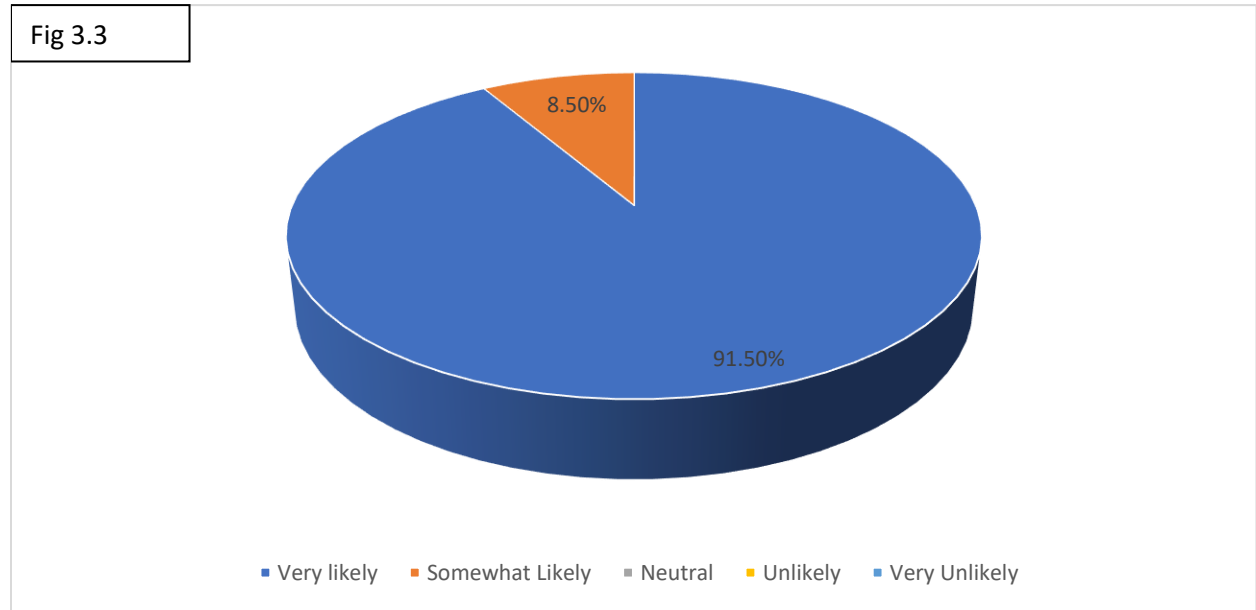
3.3.1.1 -What is your age group?



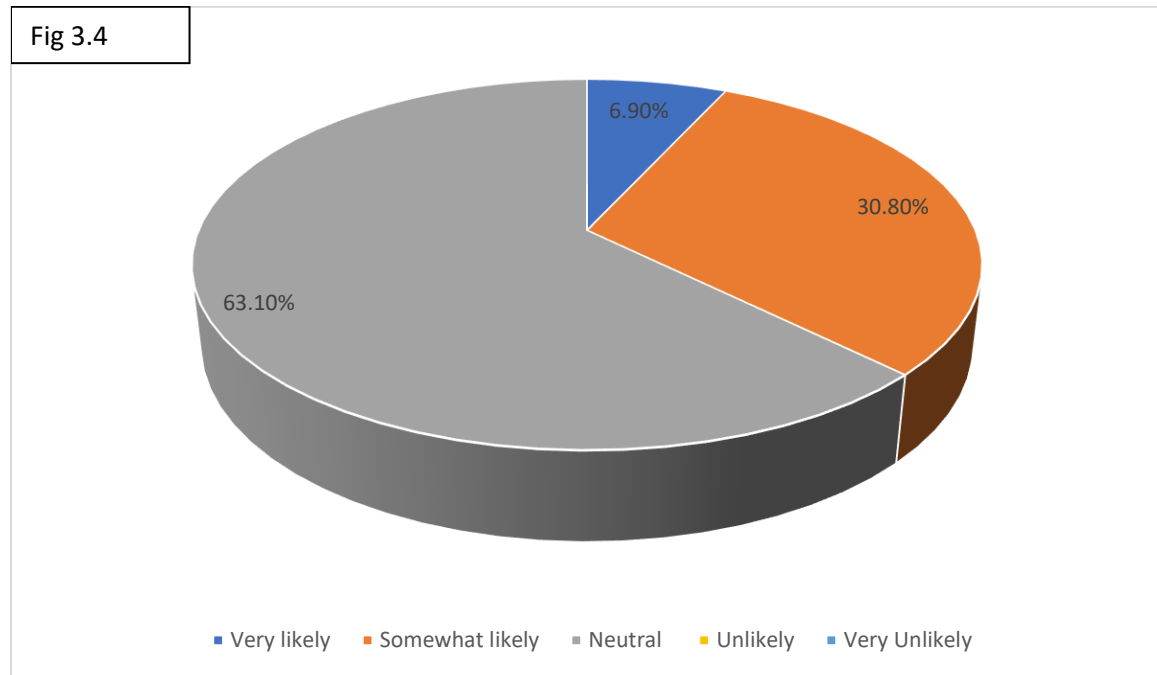
3.3.1.2 -What is your educational status right now?



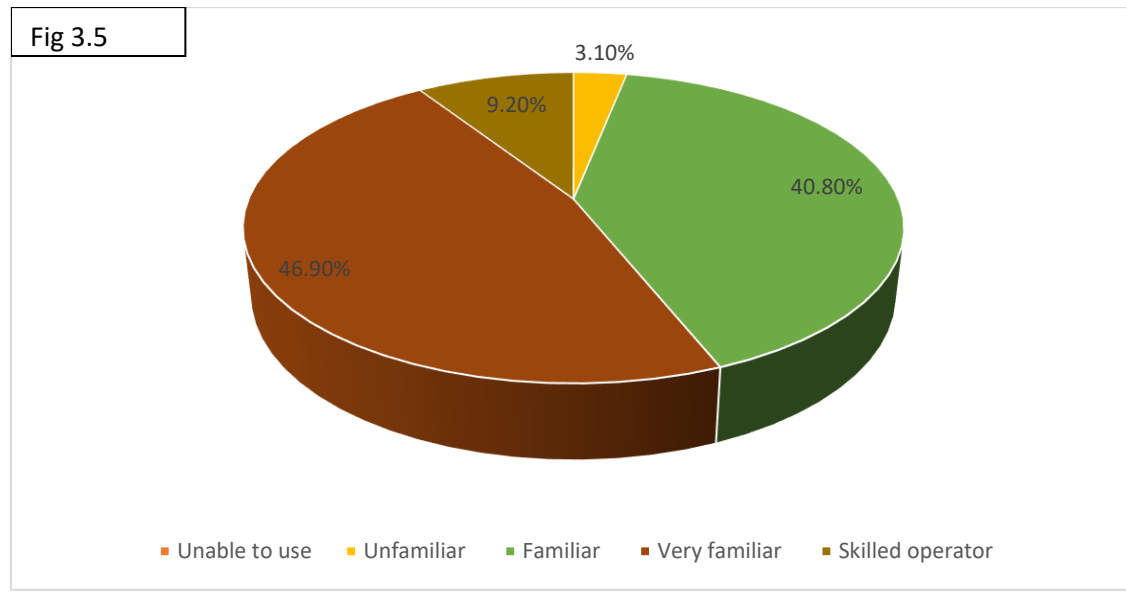
3.3.1.3 -Are you familiar with the Hollywood movies and the visual effects that are used these movies?



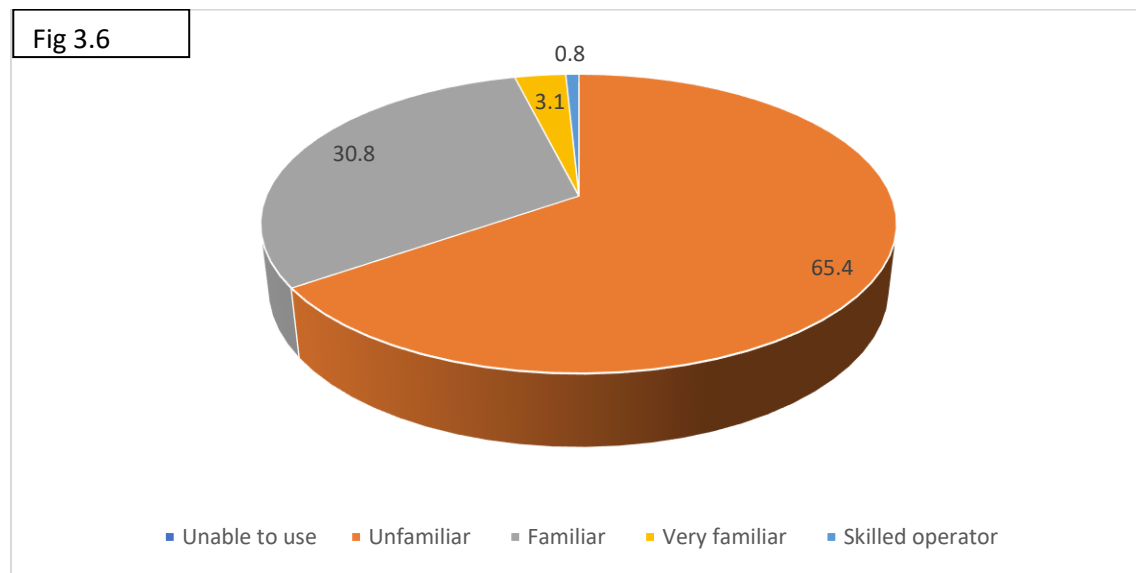
3.3.1.4 -How likely are you with the global visual effects industry?



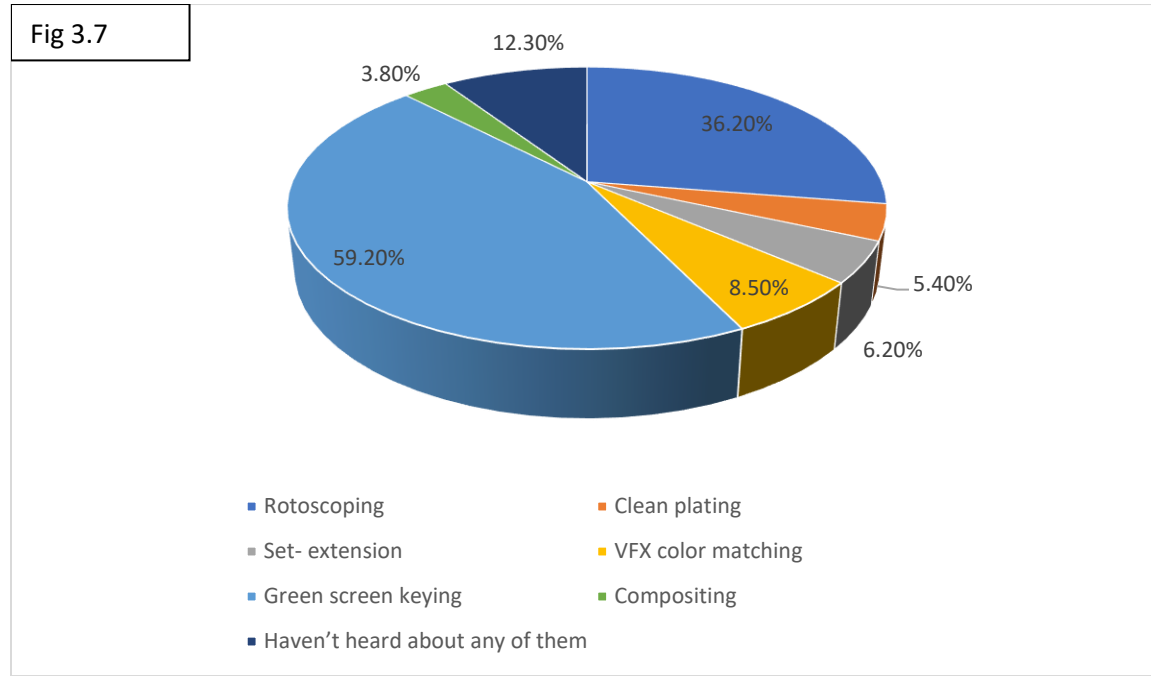
3.3.1.5 -Are you familiar with using a desktop computer?



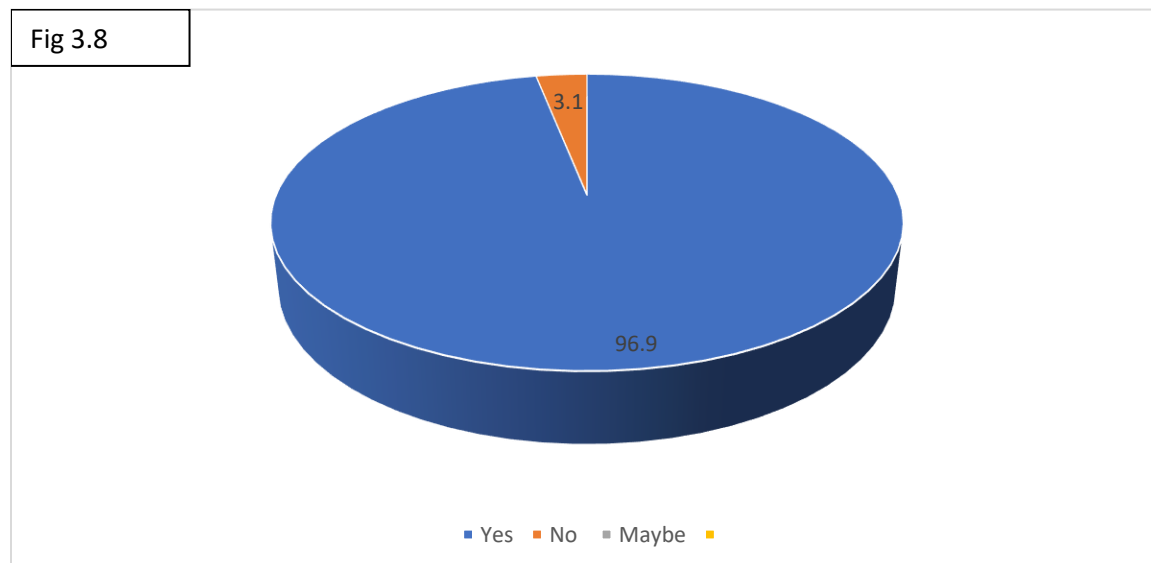
3.3.1.6 -Regarding the use of software like Photoshop, Indicate your level of knowledge



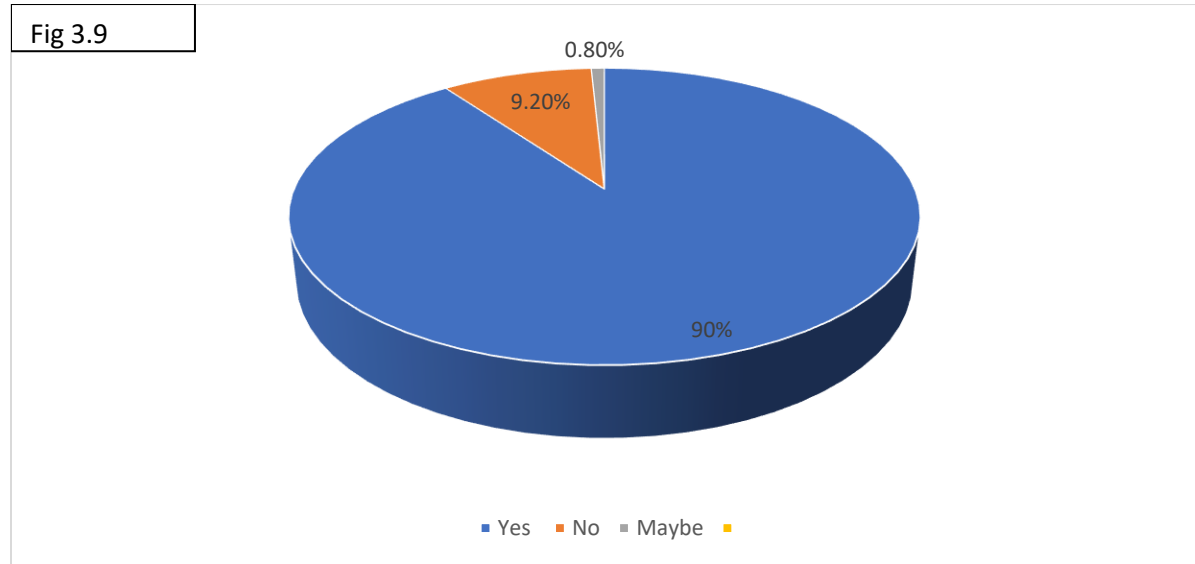
3.3.1.7 -Are you familiar with any of the following visual effects related work?



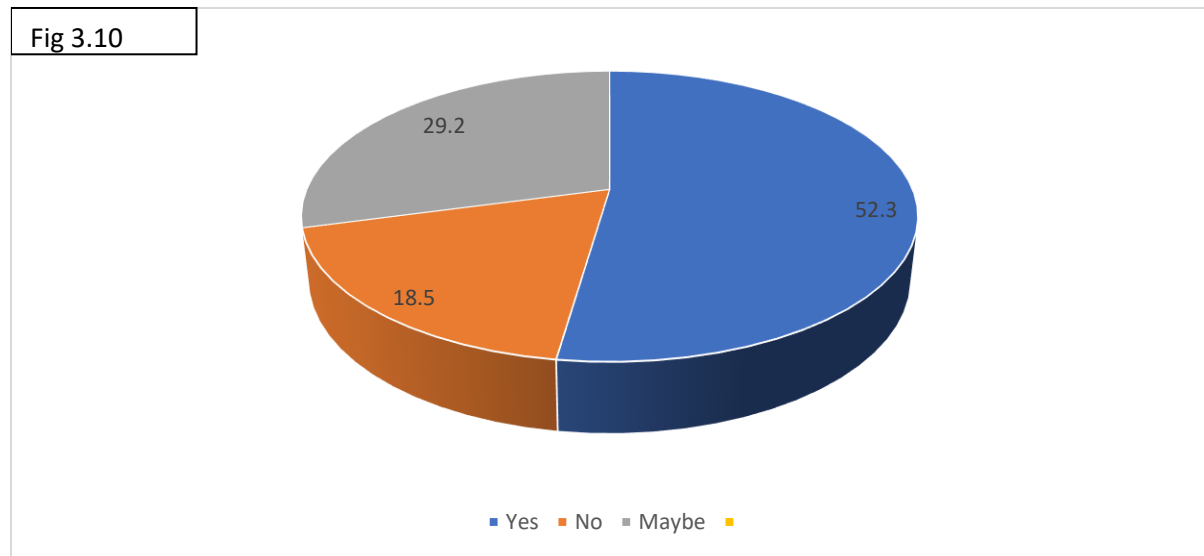
3.3.1.8 Are you interested on taking free trainings on the topics mentioned in previous question?



3.3.1.9 Are you interested in working on freelance visual effects projects?



3.3.1.10 -Do you want to peruse career in visual effects and CGI industry?



3.3.2 Analysis of survey results

The survey named as “Survey on industry perspective of visual effects industry in Bangladesh” was conducted based on 130 responses from Google form. Based on the information I have gathered from the survey I've discovered the following findings

- From figure 3.1 and 3.2 we can see that most of the people (81.6%) who have participated in the survey are belong to the age group of 24-26 and also most of them (76.9%) are fresh graduates.
- From figure 3.3 and 3.4 I've found out that high number of participants (about 91.5%) are fond of watching Hollywood movies and they are well aware about the visual effects those are used in this movie but they are not well aware about the visual effects market. Only a few percentages of participants (6.9%) are well aware about the visual effects market. So, it's very clear that people enjoy the Hollywood movies and they are well aware about the use of visual effects in the movies but they are not well aware about how these visual effects industry is growing.
- According to figure 3.5 and 3.6 we can see that 40.8% of participants are familiar with using a desktop computer, 46.9% are very familiar with using the computer and 9.2% are skilled operator. Among this user of desktop computer 34% participants are familiar with using editing software like photoshop. So, they have the basic knowledge of image editing.
- From figure 3.7 we can find out there are different kinds of works in visual effects pipeline. Among them most participants (about 59.2%) know about green screen keying

and (36.2%) have idea about rotoscoping, 5.4% know about clean plating, 6.2% know about set extension, 8.5% know about VFX color matching and 3.8% of them have ideas about compositing. About 12.3% of people have no idea about any of the aspects of visual effects pipeline. So, we can see that green screen keying and rotoscoping in the most known subject of visual effects pipeline. Also, participants also have ideas about some of the other works of VFX pipeline.

- According to figure 3.8-3.10 I've found that most of the participants (about 96.9%) are willing to join a free training session on any of the sectors of visual effects pipeline. 90% of them are also willing to work on freelance visual effects projects. About 52.3% of them want to peruse a careen in visual effects and CGI industry and 47.3% of them are either not willing to pressure careen on visual effects industry or haven't decided yet. So, we can see from this figures that most of the participants are willing to train themselves up on the skills required for visual effects industry and they are also willing to work on freelance projects rather than working as full time in this industry.

According to the survey we can conclude that most of the people who are fresh graduates are interested in the movies and also visual effects. Also, they are well known about the two of the most demanding sections of visual effects like rotoscoping and green screen keying. The visual effects industry in Bangladesh is still in a growth stage and people don't want to get involved in this job sectors because sometimes they think of it as a risky and unstable sector. That's why they people tend to work on visual effects freelance projects rather than pursue it as career. Also, they are willing to gather skills on visual effects. People who have basic knowledge of computers

can work as a rotoscoping artist and in green screen keying. Most of the software that are used in this field are work with highly automated process and are not hard to operate.

3.3.2 Analysis of interview with artists

I interviewed two renowned artists of Bangladesh who has been working in this industry for many years. One of them an Ashik Ahmed Leo, motion designer in Million Dreams Studio and Anik Zaman, concept artist and illustrator. Both of them are self-taught artists. I've talked with them about how they entered into this industry, about the prospects and the problems they are facing while working in this industry. Ashik Ahmed Leo has been working as motion graphics artist for last 8 years. He started his career as a freelance video editor. Since then, he has significantly trained himself from all available resources and landed on his first job at Ognirodh Studios. After that he joined MVRK studios and lastly, he's now working in Million Dreams Studio as motion graphics supervisor. He said that Bangladesh is doing a very good progress in visual effects sector. Many of the self-taught artists are now working in the global visual effects industry and also some of the giant studios like MPC, Method Studios etc. He also mentioned that there is a lack of proper training institute in Bangladesh. New artists and entrants are often finding it hard to collect proper guidelines and also there is no proper artists community in Bangladesh. Leo also mentioned that the main challenge for working as freelancer or with direct client from Bangladesh is the lack of proper payment gateway.

Another artist Anik Zaman is working in entertainment industry as concept artist and illustrator for last 3 years. He started his career in MVRK studio as concept artist. He told us about some challenges he has faced during his working in this industry. One of the major problems is when

clients are not fully informed about the complexities of the visual process, when working on a project, it might be tough to come to an agreement. There is also a scarcity of excellent artists in the business right now, so things get incredibly stressful when jobs start stacking up. He also mentioned the issue about the unavailability of PayPal as he faces difficulties to get payments from the international clients.

3.3.3 Freelance sectors with possibility for Bangladesh

3.3.3.1 Rotoscoping

Rotoscoping is a method used by animators to trace over motion picture film frame by frame in order to create realistic action. Animators used to sketch over the movie frames on a panel of glass. Developed by Polish-American animator Max Fleischer, this projection apparatus is known as a rotoscope. Although computers subsequently supplanted this equipment, the method is still known as rotoscoping. Every feature film now a days needs massive amount of rotoscoping. Outsourcing feature visual effects work from Hollywood, sometimes through pure work-for-hire agreements and other times through co-productions or joint ventures, is a relatively recent practice. Due to the industry's lack of expertise with high-end effects, the original focus was on labor-intensive activities such as wire removal and rotoscoping. Some popular software for rotoscoping is silhouettefx, NukeX, After Effects etc.



Fig – 3.11

3.3.3.2 Green Screen Keying

The green screen key technique is a technique for removing a certain color from a picture and replacing that piece of the image. This color can be any solid hue, although the most popular choices are blue and green. The act of eliminating a solid color from a picture is referred to as chroma keying. After effects and NukeX are the industry standard and easy to use green screen keying software. Green screen keying is not only use in Hollywood feature films but also in everywhere. Marketing videos, Local film and advertisement industry also use green screen videos and keying for their projects.



Fig – 3.12

3.3.3.3 Set extension and Clean Plating

Set extension is the process of creating a CG environment for a shot that was not filmed during real-time. They can boost a scene's production value, transforming even the most mundane shot into something epic and engaging. They're also one of the first visual effects gimmicks in film history.



Fig – 3.13

3.4 Summary and conclusion

By analyzing the survey data and the interview with artists it's quite clear that the new generation is interested in getting into the global visual effects industry. Most of them are very familiar with Hollywood movies and also, they are very much aware about the fact that there is a huge number of visual effects used in these feature films. Though they are well aware about the making of the feature films and visual effects, they have less idea about the visual effects market and how this visual effects and CGI works are done and distributed globally. As most of them are well familiar with computers and some of them have experience in image editing these skills can be easily converted into demandable sectors for visual effects like rotoscoping, keying and clean plating. As they are interested in doing freelance work the outsource visual effects jobs can be distributed among them. Also, there is a need of proper training on this sector in our country. The community is not so helpful towards the newcomers and this often makes it hard for the new artists who are trying to enter into this industry.

3.5 Recommendations

As there are many newcomers who are interested in taking training and getting into the global visual effects market there should be some proper training programs for them. Organizations who are already working in this sector for a long time and local artists who have been working in this industry can arrange training programs. This will help these organizations to build a whole new industry and they can enter into the global visual effects industry. Also, the available payment systems are not suitable according to international standards. Clients throughout the whole world prefer PayPal as a standard payment system which is not available in Bangladesh. Also, the available and alternative payment systems like Payoneer and Xoom should be

introduced to the freelancers. There is a lack of community support in Bangladesh in the entertainment industry. So, creating a community forum or website can help the new artists to get connected with the industry veterans. The clients will likely approach artists who have been working in this industry for a long time and also have experience in similar works. So, the experienced artists can take the outsource jobs from the clients and can distribute them among the newer artists.

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