

# **Internship Report on Micro-Learning Blessing for Generation Z**

Submitted by:

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An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of Bachelor of Business Administration.

BRAC Business School  
BRAC University  
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# Declaration of Student

I, MD Junayed Uddin, hereby declare that the internship report entitled "Micro-learning Blessing for Generation Z" submitted to BRAC Business School, BRAC University in partial fulfillment of the requirements for the degree of Bachelor in Business Administration is my original work and has not been copied from any other source.

I have used my own words and ideas throughout the report, and any references to the work of others have been properly cited. I have also taken due care to ensure that the report is free from grammatical and spelling errors.

I understand that plagiarism is a serious offense, and I have taken all necessary steps to avoid it. I am confident that this report is my own original work, and I am proud to submit it for your evaluation.

Student's Full Name & Signature:

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MD Junayed Uddin  
Student ID: 19104097

Supervisor's Full Name & Signature:

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**Dr. Tarnima Warda Andalib (Supervisor)**  
Assistant Professor, Brac Business School,  
BRAC University

# Letter of Transmittal

Tarnima Andalib  
Assistant Professor  
BRAC Business School  
BRAC University

Subject: Submission of Internship Project.

Dear Ma'am,

I am submitting my internship report here as it is a requirement for the BBA program. Being actively supervised by you while I work is a huge accomplishment for me. The study extols the virtues of microlearning for Generation Z, and a large portion of this idea was adapted from the Learning and Development Team of SQUARE Pharmaceuticals PLC, which also administers the program and where I completed my three-month internship.

I made every effort to finish the report properly and generate a useful report while adhering to all restrictions. I focused on the topics I thought would be most important to include in the report.

It was a joy to work on this report to gain some practical experience and a firsthand understanding of the activities of the Human Resource Management department. If you will be so kind as to read this report and offer your opinion, I would be very grateful. Upon request, I would be happy to provide you with clarity. Therefore, I submit it in the hopes that you would overlook my tiny errors.

Sincerely yours,  
MD Junayed Uddin  
19104097

# Acknowledgment

I would like to express my sincere gratitude to the following people who have helped me complete my internship report from the Human Resource Department, where the Learning and Development team is at SQUARE Pharmaceuticals PLC:

- Nurul Islam, Manager, of the Human Resource Department for providing me with this valuable opportunity and for their guidance and support throughout my internship.
- MD Shahidul Alam, Senior Manager of the Human Resource Department, and my supervisor, for their mentorship and for sharing their knowledge and expertise with me.
- Sagar B Halder, Assistant General Manager, the Human Resource Department for their support and encouragement.
- Fakhruul Hasan and AK Paul, General Managers, of the Human Resource Department for their overall guidance and support.
- Dr. Tarnima Warda Andalib and Mohammad Dr. Rabiul Basher Rubel, Assistant Professor, Brac Business School, BRAC University, my supervisor and co-supervisor for their feedback and suggestions.
- All the members of the Learning and Development team for their warm welcome and for creating a supportive and inclusive work environment.

I am grateful for the opportunity to have interned at SQUARE Pharmaceuticals PLC and to have learned from such a talented and dedicated team. I am confident that the skills and knowledge I have gained during my internship will be invaluable to me in my future career.

Thank you

MD Junayed Uddin

# Executive Summary

I have done my internship in the HR department of SQUARE Pharmaceuticals PLC and the team with whom I worked was learning and development so the internship report reflects most of the part from these sides. The internship report contains a total of three chapters. Chapter one is basically the overview of my internship. This part reflects the outcomes of my internship as well as the activities I have done during the internship program. By reading this part the reader will understand the responsibilities and the perspective of the intern working at the SQUARE Pharma HR department. Chapter two is written on the company overview. Here the company is SQUARE Pharmaceuticals PLC. So, those parts the intern knows and the reader needs to know are only mentioned here on their official website and in their recently published annual reports. Chapter three reflects the major part of this report as the report is written on the topic of “Micro-Learning the blessing of Gen Z” So, by accumulating secondary research and an interview done in the HR department of SQUARE Pharma both analysis is given here to understand all perspectives of this topic from different angles. To understand it many other things are also added here. Also, a brief inductive analysis is given here to correlate more.

**Keywords:** SQUARE Pharmaceuticals PLC, Internship Report, Learning and Development, Micro-Learning, Gen Z, Interview, Secondary Research, Inductive Analysis

# OBJECTIVE

Since learning is a lifelong process, I'm undertaking my internship with the SQUARE Pharmaceuticals PLC HR department's learning and development team. I can now clearly see the value of microlearning in addition to training courses. Generation Z has profited from it, as I said in my essay, and I'll look into it more to learn more particular findings, even if the micro-learning is for all ages of employees at SQUARE Pharmaceuticals PLC. Learning always has benefits for civilians but nowadays people have less time to focus on productive activities for busy schedules. Microlearning can take the chance to provide some elements of knowledge in their free time during office working hours. This procedure will undergo modern technologies and grant a narrowed sample size, we will focus on Gen-Z people, who are benefiting from this microlearning initiative. The people who were born between 1997 and 2012 are considered Gen-Z and they are the second youngest among all generations after Generation Alpha. (Warren, 2022) In different articles, it has been seen that the micro-learning concept was successful in educating people to engage and retain concepts, and mini skills at jobs, and helping organizations for faster progress. (Dn, 2021), now the focus of this report will be the benefits that are having by Generation Z in many places of the world and can be implemented at workplaces and other public places to build a productive nation. The aim of this report will be to the outcomes of microlearning in day to day life of Generation Z in an optimistic way, though there can be some drawbacks of microlearning in the procedure the concept of learning and being productive cannot be harmful.

# Table of contents

<b>Content</b>	<b>Page Number</b>
Non-Disclosure Agreement	4-6
Acknowledgment	7
Objective	8
Executive Summary	10
<b>Chapter 1 (Overview of Internship)</b>	
1.1 Contribution to the Company	10
1.2 Benefits to students	10-11
1.3 Job Descriptions	11
1.4 Suggestions for future interns in the Pharmaceutical Industry from a BBA background	11-14
<b>Chapter 2(Organization Part)</b>	
2.1 Introduction	16-18
2.2 SQUARE Pharmaceuticals PLC.	19
2.3 The founder chairman and his family who is behind the success of SQUARE Group	20-22
2.4 Mission Vision	22
2.5 Formulation Sites of SQUARE Pharmaceuticals PLC.	23
2.6 Dhaka Site	24-26
2.7 Pabna Site	27-28
2.8 AgroVet Division	28
2.9 Pesticide Unit	28-29
2.10 Herbal & Ayurvedic Site	29-30

2.11 Export Market	30-31
2.12 Short forms of some important aspects	32
2.13 Sister Concerns of SQUARE Group	33-34
2.14 Leadership Style and Departmental Practices	35
2.15 Human Resource Management	36-44
2.16 Marketing	45
2.17 Financial Overview of the Company	46-53
2.18 Conclusion	54-55
<b>Chapter 3 (Micro-Learning Blessing for Gen Z)</b>	
3.1 Introduction	57-58
3.2 Background Study	59-64
3.3 Research Objective	64
3.4 Research Questions	65
3.5 Literature Review & Table	65-69
3.6 Theoretical Framework	69
3.7 Hypothesis	70
3.8 Conceptual Framework	70-72
3.9 Why Micro-Learning for Gen Z?	73-74
3.10 Positive Outcomes of Micro-Learning for Gen Z	75-85
3.11 Why Micro-Learning is not for all?	86-90
3.12 How Micro-Learning Content Can Be Created? & Areas I was concerned about while working on Micro-Learning at SQUARE Pharma	91-95
3.13 The Relation of MicroLearning, Mobile Learning, and Ubiquitous Learning	96-97



3.14 Methodology	98-99
3.15 Demography Table	100
3.16 Data Analysis	101-102
3.17 Why SQUARE Pharmaceuticals PLC. HR department for the interview?	102-103
3.18 An Analysis of Interview Taken by Intern among SQUARE Pharmaceuticals HR Employees to Review Micro-Learning from Different Aspects with Gen Z.	104-107
3.19 Inductive Narrative Analysis Table Optimistic Connection of Micro-Learning & Gen Z	108-109
3.20 Conclusion	110-114
Reference	115-120
Appendix	121-135

# **Chapter 1**

## **Overview of Internship**

The SQUARE Pharmaceuticals Public Limited PLC. allowed me to do a paid internship in the headquarters SQUARE Center at 48 Mohakahali, Dhaka, Bangladesh, at their human resource management department under the learning and development team for three months. There are other departments like recruitment and talent acquisition, field force management, and HR information systems (IS). Mr. Md Shahidul Alam, the senior manager of the HR department was my supervisor here, who guided me in these months. The job responsibilities were

- Under the Learning and Development team, proposing names and utilization of micro-learning content for the company employees.
- Doing thorough research for microlearning content.
- Gathering visuals like videos, pictures, and music for the content, which must be relatable to the concept.
- Creating the video module by obeying all rules of micro-learning concepts, the video must be within a one-minute duration, with easy Bangla language, and short language must be used also the color variation and word format.
- Taking reviews from seniors and the related department with task matches like for human health-related matters, I have to take reviews from doctors of the Medical Service Department.
- After going through all the reviews, and the finalized content I handed them over to the executive of the HR department Abdur Rhman, who published them via MPS software.
- Under the Recruitment and Tallent Acquisition team, I have attended all the calls and given calls for reminders, notifying them about their result also scheduling exams and viva for the job.
- Created and organized candidate summaries from CVs. Also, I have created a final proposal for those, who have been selected for the job.
- Guided candidates for medical exams at SQUARE Hospital after providing a job offer letter.
- Provided job offer letter, and appointment letter, and guided them through all formalities before joining or working for employee placement.

# 1. Internship Outcomes:

## **1.1 Contribution to the company:**

The team, I have worked on learning and development is coordinated by a senior manager of the HR department, who is also my supervisor, whom I reported to Mr. Md Shahidul Alam. The basic aspect of the team under which I worked was a gradual improvement of the employees who fall under the SQUARE Pharmaceuticals PLC. For example, different kinds of short, medium, and long-term training in national and abroad-based centers, that they also provide employees the opportunity to attend and host different seminars across the country and abroad as well. Here I need to mention that microlearning is also one of the tasks of this team as the content under it provides knowledge at unproductive times to increase productivity in different sectors and I worked here to develop their content. Here I have developed fifty-six video microlearning modules, for I had to do thorough secondary research from the internet, and articles from newspapers and magazines to develop the base of the content. Besides that, I have worked in a recruitment and talent acquisition team and here I have gained hands-on experience from requisition to the placement of employees. Also, I have sorted CVs, invited for exams via phone call, made candidate summaries, assisted in written exams and viva, internal audit files, and final proposals, guided them for the medical tests, and had updates on potential employees, etc. The recruitment and talent acquisition team is monitored by the manager of the HR department of SQUARE Pharmaceuticals Mr. Nurul Islam. In addition to the aforementioned, the following advice is provided specifically for the potential pharmaceutical intern with a background in business: Make an effort to improve your transferrable talents.

## **1.2 Benefits to students:**

The contents of microlearning must be short and minute, easy to grab information, well understandable for all classes of people at the office blue-collar employees to white-collar employees, and socially acceptable for these employees these things need to be focused on when making modules. Besides, I have used visual and sound effects aligned with the topics and it was necessary because the audience will understand from far viewpoint easily and quickly. In the first week of the internship I gained the knowledge of the art of making the

microlearning modules cause these contents are different from others. The microlearning modules are reviewed in different steps as this includes different types of important information like medical issues, technical knowledge, and behavioral knowledge. For these reviews, I have to coordinate and attend the meetings with human medicine doctors from the medical service department, the doctors of the agricultural side agro vet department, and the higher authorities of my department like managers and senior managers. also, by working with the recruitment team, I can understand the procedure fully from requisition to employee placement. The way a student must behave viva board and office, I also get it. I learned negotiation in salary fixing time while an experienced employee was hired.

### **1.3 Job Descriptions:**

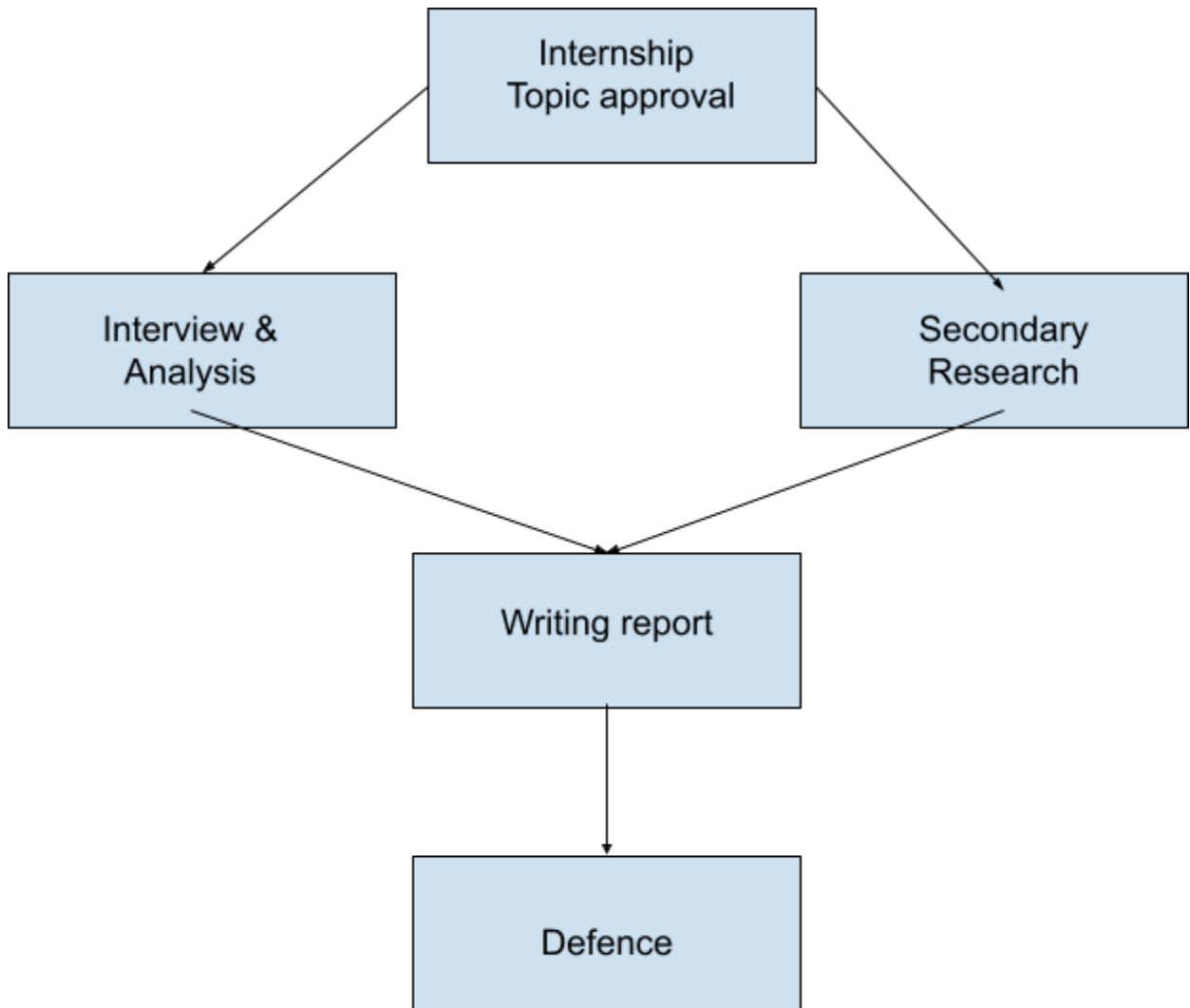
The activities I have faced on two tasks that I have done hands-on with the learning and development team, and the recruitment team are,

- Understanding the viewpoint of the audience at headquarters and plants.
- Going through secondary research and making notes, after that taking reviews for 56 modules.
- Composing the content in the right manner that my audience can understand from all perspectives.
- Choosing the right word and color was another difficult task here.
- Maintaining the common phone calls causes all the calls from the HR department to come there and I have to attend them professionally.
- Creating summaries manually for candidates.

### **1.4 Suggestions for future interns in the Pharmaceutical Industry from a BBA background:**

While you will get a solid foundation in fundamental business principles from your business education, it's equally critical to hone your transferrable abilities, such as teamwork, communication, and problem-solving. These abilities are necessary for success in any company, but the pharmaceutical sector is particularly dependent on teamwork and communication. Make connections with industry insiders in the pharmaceutical sector. Networking with experts who are already employed in the sector is one of the finest methods to get knowledge of it and establish contacts. Attend industry events, connect with individuals on LinkedIn, and request introductions from your instructors and other students.

Keep abreast of the most recent developments in the pharmaceutical sector. It's critical to keep up with the most recent trends and advancements since the pharmaceutical sector is always changing. Read trade periodicals, go to trade shows, and keep up with pharmaceutical businesses on social media. You may position yourself for success as a prospective pharmaceutical intern by paying attention to these suggestions.



Flow Chart of my Report of Internship

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
<b>Dates</b>		July 1-10	July 10-20	July 20-30	Aug 1-10	Aug 11-12	Aug 12-15	Aug 15-15 Sept 14	Sept 4-5	Sept 6-11	Sept 12-20	Sept 20-15 Oct 15	Oct 15-22	Oct 22-30	7-Dec
<b>Task Name</b>															
Chapter 1															
Internship Outcome															
Chapter 2															
Organization Part															
Secondary Research															
Financial Analysis															
Chapter 3															
Introduction															
Background Study															
Research Objective															
Research Questions															
Review taken															
Literature review															
Methodology															
Interview taken															
Analysis of the Interview															
Findings & others															
Inductive Narrative Analysis															
Conclusion															
Defence															

Gant Chart of my Internship Report

# Interns of SQUARE Pharmaceuticals PLC.



Corporate Headquarters of SQUARE Pharmaceuticals PLC. (SQUARE Center)



Dhaka Plant Visit of SQUARE Pharmaceuticals PLC.



# **Chapter 2**

## **Organization Part**

## 2.1 Introduction

The pharmaceutical sector, one of Bangladesh's most technologically proficient industries, has evolved from an import-dependent one in the 1980s to one that is self-sufficient and serves the worldwide market. During the COVID-19 pandemic, the industry demonstrated its competence and skill by promptly adapting to the unexpected obstacles and meeting not only domestic but also international demand for COVID-related pharmaceuticals. Bangladesh's pharmaceutical industry is poised to become a center for generic drugs as a result of TRIPS' patent waiver.

The pharmaceutical sector has risen steadily throughout the years, going from roughly \$25 million in 1982 to about \$3 billion as of June 2020. By 2025, it is predicted that the domestic pharmaceutical market will surpass USD 6 billion due to rising domestic consumer spending power. Currently, the business exports to more than 100 nations while also serving 97 percent of the domestic market. Branded generic medications dominate the Bangladeshi medicine market, making up over 80% of all domestically produced medications, with patented medications making up the remainder. Currently, the nation has enterprises producing 271 allopathic, 205 ayurvedic, 271 Unani, 32 herbal, and 79 homeopathic drugs. (*BIDA - Pharma & API*, n.d.) In the 1950s, a small number of local and international businesses founded Bangladesh's pharmaceutical sector. Bangladesh, one of the least developed nations, was given patent exemption in the pharmaceutical business under the British Patents and Designs Act, of 1911, following its independence in 1971. As a result, local manufacturing of generic medications started to rise. Nonetheless, the 1980s saw the beginning of the pharmaceutical industry's expansion. Bangladesh had 166 pharmaceutical manufacturers with licenses in 1981. Nevertheless, eight international corporations, including Pfizer, Hoechst, and Glaxo, controlled the nation's pharmaceutical manufacturing sector at the time and produced 75% of the nation's medications. 133 firms generated the remaining 10% at the time, with 25 local medium-sized pharmaceutical companies producing 15%. All of these businesses produce pharmaceuticals locally using foreign cash valued at BDT 60 crore and imported raw materials. Even though there are 16 domestic pharmaceutical businesses in the nation, BDT 30 million worth of pharmaceuticals are still imported from overseas each year. The pharmaceutical value chain in Bangladesh is split into two sections. The formulation of the final product is the other, and the former is the active pharmaceutical ingredient or API. Drugs with particular active components

for certain disorders are referred to as APIs. Conversely, a medicine that has been made by combining several compounds with active components is referred to as a final formulation.

In March 1982, the government established an expert committee to develop a drug policy. The committee develops policies for the formulation sector and the API sector. However, the government at that time only allowed the issuance of the Drug Control Ordinance for the pharmaceutical sector, and two new additional regulations were issued in June. One was to ban the production, import, and sale of drugs. Unnecessary and harmful drugs, second is to ban products from multinational companies that do not have their domestic manufacturing plants. As reported by Sudip Chaudhuri, THE DEVELOPMENT OF THE PHARMACEUTICAL INDUSTRY IN BANGLADESH, Bangladesh did not repeal any rules even though the then US government pressured the country to do so. However, at that time, out of 4,340 registered drugs, about 1,700 were banned and withdrawn from the market. This created an opportunity for multinational companies to reorganize their operations, but some organizations, such as Squibb, had to close operations in Bangladesh. In 1995, Bangladesh signed the TRIPS agreement with the World Trade Organization. Bangladesh, one of the least developed countries, has benefited from the production and marketing of off-patent drugs. Thanks to this, Bangladesh can produce drugs at a lower cost, making drug prices at the consumer level much lower, which is very important for an underdeveloped health sector like Bangladesh. Initially, the agreement was valid until 2005 but was later extended until 2016. It was then extended again until 2033. This facility promotes the development of the country's pharmaceutical industry. With a market value of about \$3 billion, it currently accounts for about 1.83% of Bangladesh's GDP, contributing to the country's pharmaceutical industry. According to a report by the Directorate General of Drug Administration (DGDA), there are currently 257 licensed pharmaceutical factories in Bangladesh. Since then, 150 factories have continued to operate normally, meeting about 98% of the country's total demand. Currently, 90% of the country's total pharmaceutical market is owned by domestic manufacturers and the remaining 10% is owned by multinational organizations. Bangladesh currently produces more than 450 generic drugs for 5,300 registered brands and meets the country's demand for 4% of cancer drugs. About 80% of the drugs currently manufactured in Bangladesh are generic and the remaining 20% are patented drugs. Over the past five years, Bangladesh's pharmaceutical industry has grown at an annual rate of 15.6%. In 2018, the pharmaceutical market size of Bangladesh was about 2.42 billion USD, increasing to 3

billion USD in 2019. According to ResearchAndMarkets, the pharmaceutical market size will increase by 114% and will reach more than 6 billion USD. dollars. by 2025. Furthermore, Bangladesh was able to earn 136 million Euros in the financial year 2019-20 by exporting medicines to about 147 countries around the world. Currently, the Bangladesh pharmaceutical industry is trying to capture about 10% of the global market. Six domestic organizations were able to receive approvals from major regulatory bodies such as the World Health Organization (WHO), WTO, and WIPO. (Hossan, 2023)

Serial	Company Name	Estd. Year
1	Square Pharmaceuticals PLC.	1958
2	Incepta Pharmaceuticals Ltd.	1999
3	Beximco Pharmaceuticals Ltd.	1980
4	Opsonin Pharma Limited	1956
5	Renata Limited	1993
6	Eskayef Pharmaceuticals Limited	1990
7	ACI Pharmaceuticals	1973
8	ACME Laboratories Ltd.	1954
9	Aristopharma Ltd.	1986
10	Drug International Limited	1974

Figure: The list of top 10 pharmaceutical companies in Bangladesh. (Ahamed, 2023)

## 2.2 SQUARE Pharmaceuticals PLC.

SQUARE now represents a name and a way of thinking. Its path to growth and prosperity, however, has not been without its challenges. Since its founding in 1958, it has grown to become one of Bangladesh's leading companies. Since 1985, Square Pharmaceuticals PLC, the company's flagship, has held a commanding position in Bangladesh's pharmaceutical market, and it is currently progressing toward becoming a high-performance player on the international stage.



The largest pharmaceutical firm in Bangladesh is SQUARE Pharmaceuticals PLC, which has held the top spot among all domestic and international businesses since 1985. It was founded in 1958, changed its status to a public limited company in 1991, and went public in 1995. Square Pharma had a turnover of BDT 50.87 billion (\$609.18 million), a 16.95% market share, and a growth rate of around 10.85% between July 2018 and June 2019. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.3 The founder chairman and his family who is behind the success of SQUARE Group



The date of Mr. Samson H Chowdhury's birth is September 25, 1925. He returned to what was then East Pakistan after completing his studies in India. He resided in the village of Ataikula in the Pabna district, where his father was employed as a medical officer at an outpatient clinic. He opened a modest pharmacy in 1952 in the town of Ataikula, 160 kilometers northwest of Dhaka, the country's capital. Then, in 1958, Mr. Samson H. Chowdhury started a pharmaceutical partnership with three of his acquaintances. He recalled: "We named it SQUARE because it was started by four friends and also because it signifies accuracy and perfection meaning quality". After all, they were committed to producing high-quality items. (*Square Pharmaceuticals PLC.*, n.d.)

Samuel S Chowdhury, eldest son of late Samson H Chowdhury, Founder and Director of Square Pharmaceuticals PLC. He holds a BA from Rajshahi University and a Masters in Business Administration from Trinity University, USA. He has 35 years of rich experience in pharmaceuticals, hospitals, textiles, hygiene products, media and communication. He is also the Sponsor Director and Chairman of Square Textiles Limited (a listed company) and 29 other private limited companies namely Square Hospitals Ltd., Square Toiletries Ltd., Square

Formulations Ltd., Square Fashions Ltd., Square Food and Beverage Ltd., Square Securities Management Ltd. Sabazpur Tea Company Ltd. and Maasranga Television under the Square Group. (*Square Pharmaceuticals PLC.*, n.d.)

Mrs. Ratna Patra is the only daughter of Samson H Chowdhury, Founder and Chairman of Square Pharmaceuticals PLC. He is a graduate of Dhaka University and has extensive knowledge of pharmaceuticals, hospitals, and textile industries. Ms. Patra is the Sponsor Director of Square Textiles Ltd. (listed company) and was appointed as vice-chairman. He is also a director of 19 other private limited companies namely Square Hospitals Limited, Square Toiletries Limited, Square Formulations Ltd, Square Food and Beverage Ltd, Square Securities Management Ltd, and Maasranga Television under the Square Group. (*Square Pharmaceuticals PLC.*, n.d.)

Mr. Tapan Chowdhury has been the Managing Director of the Company since 1995, the second son of the late Samson H. Chowdhury, founder and Chairman of the Company. Science graduate from the University of Dhaka and has completed different advanced courses on Business Management in Europe. Having a prosperous knowledge and experience of more than 35 years in Pharmaceuticals, Hospitals, Textiles, RMG, IT, Healthcare, Toiletries, Food and Consumer Products, Organic Tea Plantation, Capital Market Operation, and Satellite TV Broadcasting. He is also a Sponsor Director in 30 other private limited companies namely Square Hospitals Ltd., Square Formulations Ltd., Square Toiletries Ltd., Square Informatics Ltd., Square Yarns Ltd., Square Food and Beverages Ltd., Square Securities Management Ltd., Square Agro Development and Processing Ltd., Square Herbal and Nutraceuticals Ltd., Square Air Ltd., Astras Ltd., Sabazpur Tea Company Ltd. and Maasranga Television under the Square Group. He was an advisor (minister) to the Interim Government of Bangladesh in 2007. Tapan Chowdhury was also the former president of the Metropolitan Chamber of Commerce and Industry (MCCI), a publicly listed association in Bangladesh. Companies (BAPLC), Young Men's Christian Association (YMCA) and Bangladesh Baptist Church Fellowship (BBCF). (*Square Pharmaceuticals PLC.*, n.d.)

Anjan Chowdhury has been the director of the company since 1991, the youngest son of the late Samson H. Chowdhury, the founder and chairman of the company. A graduate of the University of South Florida, USA, with a degree in Business Administration, he has extensive knowledge and 25 years of corporate experience in the pharmaceutical, textile, hygiene, media, and communications industries, including capital market operations. He was involved in the

execution of various projects of Square Group namely Square Toiletries Ltd, Square Food and Beverages Ltd including Maasranga Television. In addition to his position as director of Square Group, Anjan Chowdhury is the president of ISC (Industrial Skills Council), a US grant-funded project, Bangladesh Agricultural Processors Association, and vice president of Bangladesh Cosmetics and Hygiene Industry. Member of Manufacturers Association, EC Metropolitan Chamber of Commerce and Chamber of Industry, and Director of Mutual Trust Bank Limited. He is also a member of the Audit Committee of the Company and Square Textiles Limited.(*Square Pharmaceuticals PLC.*, n.d.)

## 2.4 Mission Vision

### **Mission**

Our mission is to create and deliver high-quality, cutting-edge healthcare assistance for people while upholding the highest ethical standards in business practices and guaranteeing benefits for shareholders, stakeholders, and society as a whole.(*Square Pharmaceuticals PLC.*, n.d.)

### **Vision**

We see business as a tool for the economic and social well-being of shareholders, employees, and society at large, generating riches through material and ethical advantages as a byproduct of the development of human civilization.(*Square Pharmaceuticals PLC.*, n.d.)

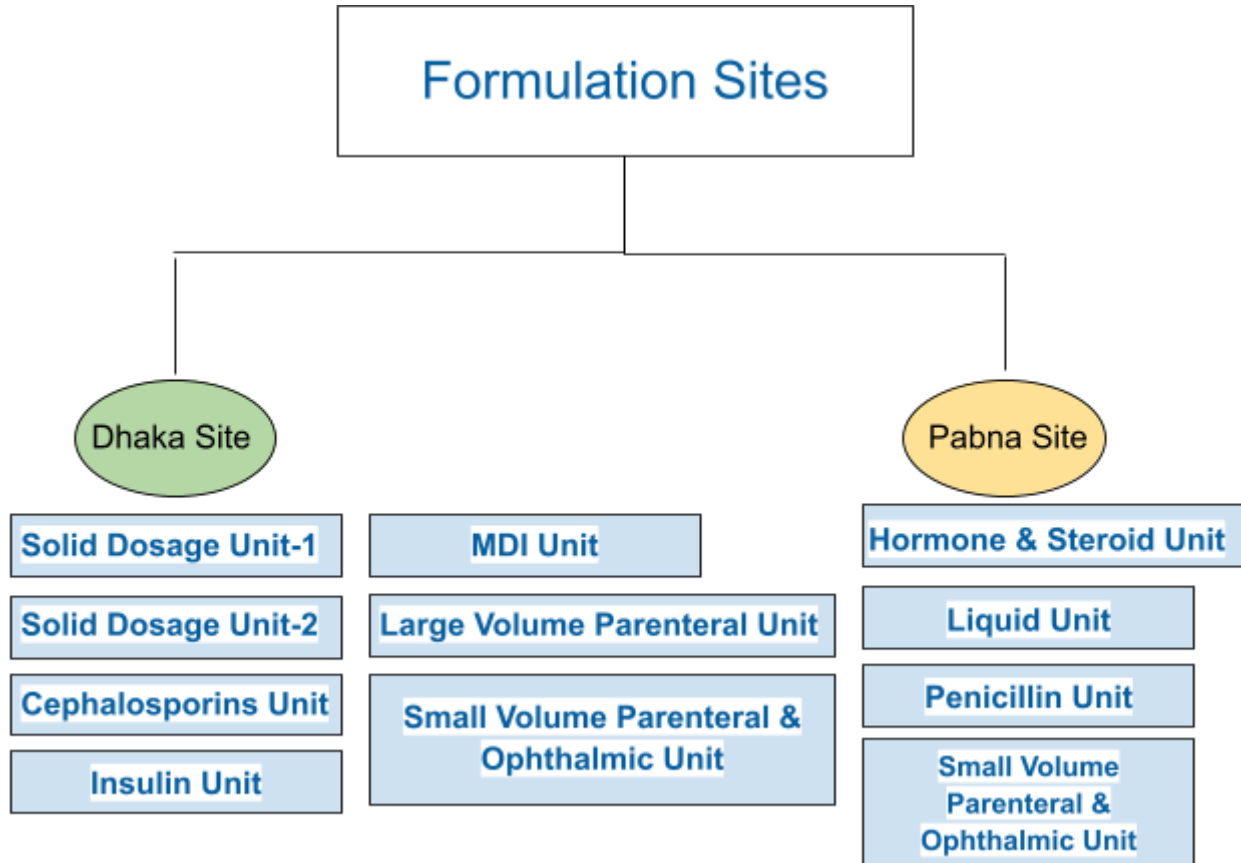
### **Objective**

Our goals are to undertake open, market-based company operations within a legal and social framework to fulfill the mission expressed in our vision.(*Square Pharmaceuticals PLC.*, n.d.)



## 2.5 Formulation Sites of SQUARE Pharmaceuticals PLC.

There are two formulation sites in Bangladesh of SQUARE Pharma, one is called the Dhaka unit and the other one is the Pabna unit.



## 2.6 Dhaka Site

The Dhaka Unit is located 50 kilometers north of the country's capital. This factory was designed by Bovis Lend Lease, UK. This production plant is state-of-the-art for oral solid dosage forms, and all facilities have been built by cGMP CFR 21. The Dhaka Unit commenced operations after 2002.

The Dhaka Unit facility was examined by a UNICEF representative from Copenhagen in 2002, who then decided to use this facility as part of their global supply. Along with the UNICEF audit, David Begg Associates, a UK-based consulting firm, also examined this facility in 2003 and found that it complies with MHRA (the United Kingdom Medicines and Healthcare Products Regulatory Agency) requirements. (*Square Pharmaceuticals PLC.*, n.d.)

### Solid Dosage Unit-1

The primary production facility for the Dhaka Unit is the General Production Building, or GPB. GPB is primarily utilized in the packaging and bulk manufacture of tablets and capsules. GPB began operations in 2002. (*Square Pharmaceuticals PLC.*, n.d.)

### Solid Dosage Unit-2

To address the rising demand for pharmaceutical products, a new manufacturing plant with cutting-edge facilities was opened in 2014. With full capacity usage, this unit suggests creating pharmaceutical dosage forms with an annual capacity of 8000 million tablets and 2000 million capsules. (*Square Pharmaceuticals PLC.*, n.d.)

The design and commissioning of this unit comply with GMP and international regulatory standards. The layout of this steel-framed, vertically planned skyscraper was created in collaboration with an international consultant and the Square project team. (*Square Pharmaceuticals PLC.*, n.d.)

## **Cephalosporins Unit**

Dedicated and self-contained manufacturing facilities must be available for the production of specific pharmaceutical products, such as highly sensitizing materials (e.g. Cephalosporins), to reduce the possibility of a major medical hazard caused by cross-contamination, (*Square Pharmaceuticals PLC.*, n.d.)

## **Insulin Unit**

SQUARE established its cutting-edge insulin manufacturing unit to guarantee the highest quality insulin. Tpro (Telster Projects), a well-known Spanish business that is a pioneer in Cleanroom Turnkey projects worldwide, established the infrastructure (civil works & utilities) of the Insulin Manufacturing Facility. The primary production equipment (Formulation vessel, Holding vessel, Autoclave, CIP/SIP station for Holding vessel) is also provided by Tpro, allowing us to produce large quantities of insulin solution or suspension. (*Square Pharmaceuticals PLC.*, n.d.)

SQUARE imported an Italian IMA-MAC vial washing and filling system for the filling of insulin supplies. This machine is a Modular Aseptic Compact (MAC) machine, which consists of three integrated units: a washing unit, a dehydrogenation unit, and a filling unit. This machine is referred described as a monoblock machine because it can wash, dehydrate, fill, stop, and cap glass vials in a single operation. (*Square Pharmaceuticals PLC.*, n.d.)

## **MDI Unit**

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SQUARE imported an Italian IMA-MAC vial washing and filling system for the filling of insulin supplies. This machine is a Modular Aseptic Compact (MAC) machine, which consists of three integrated units: a washing unit, a dehydrogenation unit, and a filling unit. This machine is referred to as a monoblock machine because it can wash, dehydrate, fill, stop, and cap glass vials in a single operation. (*Square Pharmaceuticals PLC.*, n.d.).

### **High Capacity Parenteral Device**

The Large Volume Parenteral Unit of Square Pharmaceuticals PLC is a state-of-the-art manufacturing facility that adheres to strict cGMP regulations. The building's layout and construction adhere to EU GMP and USFDA industry standards. The equipment is very technologically advanced and fully automated. Items that have undergone terminal sterilization and aseptic filling can both be manufactured on the same production line. Large Volume Parenteral (BFS PP bottle technology, glass bottle, and PVC bag infusion), Small Volume Parenteral (Glass ampoules, glass vial-lyophilized, and liquid-filled injection), Pre-filled syringe, and Non-sterile dosage options for Hemodialysis solution, Nasal spray, and Topical spray are just a few of the numerous sterile dosage form options that are available. High standards for the Quality Management System (QMS), a quality policy, competent staff, and a dependable automated process (based on an HMI) are the primary motivators. (*Square Pharmaceuticals PLC.*, n.d.)

### **Small Volume Parenteral & Ophthalmic Unit**

With the opening of a separate ophthalmology plant, SQUARE group, one of the biggest corporate conglomerates in Bangladesh, has made another significant advancement. The brand-new, cutting-edge Ophthalmic Manufacturing Plant at Kaliakoir, Gazipur, which was constructed in conformity with US FDA and UK MHRA cGMP criteria, is now producing ophthalmic products. Blow-Fill-Seal (BFS) Technology is used in this top-notch facility to maintain an acceptable aseptic environment. The building was constructed by Telstar S.A. of

Spain, a famous expert in pharmaceutical manufacturing facilities, while Weiler Engineering, Inc. of the United States created and produced the machinery. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.7 Pabna Site

SQUARE Pharmaceuticals PLC's Pabna Site, the company's first manufacturing plant, began operations in 1958. It is a cutting-edge facility that conforms with all WHO cGMP requirements. It received an ISO 9001 Certificate in 1998, with Orion Registrar Inc. of the USA serving as the Auditor. Again, the Quality Management System was updated in 2002 to the 2008 edition. (*Square Pharmaceuticals PLC.*, n.d.)

### Hormone & Steroid Unit

Following current Good Manufacturing Practices (cGMP), SQUARE Pharmaceuticals produces its hormone and steroid products in a separate structure reserved only for those substances. In this hormone and steroid facility, all manufacturing processes, including tablet compression, tablet coating, tablet blistering, individual cleaning, dispensing booth, and automatic granulation, were finished. (*Square Pharmaceuticals PLC.*, n.d.)

### Liquid Unit

Any pharmaceutical business that wants to succeed needs to have a strong liquid division like SPL. Syrup, suspension, dry powder, cream, and gel are all included. For the preparation of the Entacyd suspension solely, it has another branch. It began operating in 2010. (*Square Pharmaceuticals PLC.*, n.d.)

## Penicillin Unit

All penicillin-finished pharmaceutical manufacturers are required by the cGMP guideline to set up a thorough control strategy intended to prevent the contamination of other medications with penicillin. The dedicated Penicillin manufacturing facility was built to adhere to cGMP standards. It is outfitted with cutting-edge machinery to produce penicillin products that meet international standards. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.8 AgroVet Division

The AgroVet division began operations in 1998 with just three locally produced goods. 73 (133 presentations) poultry and cattle goods, both locally produced and imported, are currently successfully available on the market.

We manufacture and sell medical products locally, including antibacterial agents, anthelmintics, NSAIDs, antihistamines, antidiarrhea, vitamins, digestive stimulants, etc. Additionally, we also deal with a variety of imported products from renowned overseas producers in countries like Holland, France, India, Germany, Thailand, and China, such as vitamins and mineral premixes, enzymes, growth promoters, antioxidants, liver tonics, mold inhibitors, toxin binders, salmonella killers, electrolyte & minerals, coccidiostat, larvicide, feed grade amino acids, respiratory stimulants, and anti-mastitic products.

We also started marketing Schering Plough Animal Health goods last year. Schering Plough Animal Health is the largest worldwide veterinary pharmaceutical company. In addition, we negotiated a distribution contract with Norbrook Laboratories & DOW, USA, a prominent UK manufacturer of veterinary injectables. Our overall goal is to give our cherished customers time-worthy services. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.9 Pesticide Unit

The newly established Pesticide Unit is committed to expanding the agriculture industry through the use of public health pesticides and agricultural chemicals. The initial goal of the unit, when it was founded, was to dominate the Bangladeshi agrochemicals market. Repackaging, selling, and marketing of

insecticides, fungicides, and herbicides produced by FMC Corporation in the United States and Chimac-Agriphar s.a. in Belgium are the major operations. All of the equipment is pneumatically regulated, and all of the lightings is explosion-proof in addition to the creation of an aerosol for controlling mosquitoes. They were incredibly flexible to a wide range of operating circumstances because of these features, and they were also relatively safe to use. In addition, we have highly skilled and experienced workers, advanced equipment, and a great environment for teamwork to develop quality products that satisfy both national and international standards. Our main objective has always been to improve the environment and provide additional advantages for humankind's future. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.10 Herbal & Ayurvedic Site

The Herbal & Ayurvedic Division of SQUARE Pharmaceuticals PLC is the country's first natural healthcare provider and has made a significant commitment to ushering in a new era in Bangladeshi medicine. With the highest-quality natural products that are solely of Eastern and Western origin, as well as matching ever-expected efficacy and safety of international standards, we have already won the trust of our healthcare providers. As a developing nation, it is to our advantage to explore this trend in line with the global competition, to have top-notch herbal products available for both domestic and international use, where natural medicine has revolutionized healthcare through its popularity and practice.

The therapeutic topics we will explore include:

- Flu medicine with expectorant
- Hepato-protective
- Antidepressant and CNS
- Cardiovascular
- Immunomodulator and Adaptogen
- mineral and vitamin supplement
- Hematinic
- Gastrointestinal
- Topical painkillers
- Hormonal

We also provide classic Ayurveda remedies in a highly contemporary manner with a sophisticated presentation, in addition to herbal medicine. Our Ayurvedic product line includes liquid vitamins, digestive health products, energy tonics, and more. (*Square Pharmaceuticals PLC.*, n.d.)

## 2.11 Export Market

The markets below are already served by SQUARE Pharmaceuticals PLC:

Asia consists of the following countries: Afghanistan, Azerbaijan, Bhutan, Cambodia, Georgia, Hong Kong, Iraq, Laos, Macau, Malaysia, Maldives, Myanmar, Nepal, Philippines, Singapore, Sri Lanka, Tajikistan, Vietnam, and Yemen. (*Square Pharmaceuticals PLC.*, n.d.)



## We export to following countries:



Africa: Kenya, Libya, Mauritania, Mauritius, Mozambique, Nigeria, Somalia, Sudan, Tanzania, and Uganda.

Oceania: Papua New Guinea, Palau, and Fiji.

Belize, Costa Rica, Jamaica, Nicaragua, Panama, and Suriname are all in Central and South America.

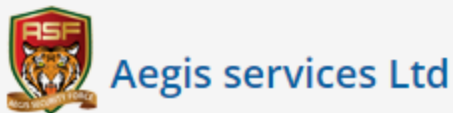
United Kingdom (Contract Manufacturing)

Americas: North

## 2.12 Short forms of some important aspects

<b>Short Forms</b>	<b>Long Forms</b>
CHQ	Corporate Headquater
LC	Letter of Credit
PMD	Product Management Department
AM	Area Manager
FS	Field Supervisor
TR	Tour Program
DCR	Daily Call Report
FM	Field Manager
SPL	Square Pharmaceutical Limited
MRA	Market Research Assistant
MPO	Medicine Promotion Officer
CGMP	Current Goods Manufacturing Planing
MG	Manager
FAT	Factory Assessment Training
SDO	Sales Development Officer
SAPCO	System Application and Product Cost
TNA	Training Needs Analysis
SPO	Sales Promotion Officer
MP	Market Promoter

## 2.13 Sister Concerns of SQUARE Group





SQUARE College of Nursing



ASTRAS Limited



Square  
Texcom Limited



**SQUARE**  
**TEXTILES LTD.**



Square Yarns Ltd.

## **2.14 Leadership Style and Departmental Practices**

The leadership style of SQUARE Pharmaceutical PLC is participative because, whenever any important step is taken like a discussion about the software regarding the KPI recorder, I saw the heads of the different departments come to the HR department and participate in the meeting with the software developer company. However, the decision-making power or approval power was on the General Manager of the HR department, here it is clear that the leadership style is participated according to my observation.

## 2.15 Human Resource Management

### **Recruitment and Selection:**

When we discuss the human resource department the first task that will come to our mind is recruitment and here in SQUARE Pharmaceutical, it is done by recruitment and talent acquisition team. Mr. Nurul Islam leads the recruitment and talent acquisition team. The manager of the HR department, two senior executives, and one executive are operating the functions regarding recruitment of corporate headquarters, Dhaka, and Pabna plants.

In the past the recruitment team followed the manpower planning for the Kenya plant, sometimes they followed it but not in Bangladesh. The step of recruitment starts with the requisition, a job requisition is a formal request recruiters or hiring managers fill out for their company's HR department to create a new position or to fill a job vacancy. (Long, 2023) for example, if the quality control unit supervisor seeks a replacement then he or she will raise a requisition to HR by having all approval from his department. In the paper on recreation, it is clearly stated for which reason they need an employee like a replacement or a new requirement, and for which purpose like business expansion, additional work, job restructuring, etc. Also for our ease of understanding the work and the station are divided into different categories and sub-categories like department then team then position. Here the HR department analyzes the need though there is approval from that department the HR personnel also have a responsibility to have a clear view of needs from far away from that environment cause many times the requisition comes from plants and that is why the HR personnel have to have an idea about the basic technical knowledge and the connections with that departmental members to know cross check the whole matter and avoid any favoritism or any unethical activities.

After approval from all sides, the sourcing starts and they source employees from two places "in-house sourcing" and "external sourcing". By "in-house sourcing" after publishing the job circular, if there is any potential employee, who wants to join this organization they approach him or her. But in "external sourcing" they publish advertisements in two portals, one is their e-recruitment website and the other one is Bd

jobs. They also provide the circular to different university-based career offices to pull the talent. One thing that is important to mention is that sometimes they also do “head hunting” via LinkedIn and Bdjobs, where the procedure is that people who are updated with their profile and fits within their requirement just knock them and ask if are they interested to shift their job to the new one.

The next step is taking a written exam and viva, here one thing needs to be mentioned, the fresh candidates here face multiple vivas but for the experienced candidates only the written exam is enough for them.

After qualifying in written and viva the authority provides them with instructions about their medical test. The medical test is important because in some aspects physical strength needs to be ensured in the pharma industry like any contagious diseases or standing capability for a long time etc.

If the candidate passes all steps then the job offer letter and the appointment letter are given with all instructions.

### **Reward management and compensation system:**

Reward management is the introduction of policies and strategies that reward every employee within the business fairly and consistently across the board. Rewarding employees for outstanding work makes them feel valued and can prove to be a powerful motivational tool that boosts productivity.(Dube, 2021) In every sector like sales, and HR, there is one thing they need to fill up and it is the Key Performance Indicator (KPI), though KPI differs on the basis of activities. For example, the people who work in sales achieve their target which is clearly reflected in the quantitative number format on the other hand in the HR sector the qualitative steps matter like decision-making capability. Here the appraisal starts with the employee as he or she has to rate his or her own work then the supervisor of that employee rates. After these steps, the HR cross-checks all data from the database. For compensation, they have to first count the inflation then they count the cost of living in the city where the workstation is. The third step is

competitive strength, here one thing needs to be mentioned and that is they have to have an idea of what their competitors are giving, salary as well and the allowance package. Though in the pharma industry, they are counting the competitors they have to count others like the FMCG industry and others as the employees have a tendency to change the job field nowadays. The pay scale from the government is also highly prioritized here.

### **Learning and Development:**

Every activity in the headquarters is driven by the factory even the training as well. Training is a short-term solution to train any employee and we know it but before providing training we need to consider some steps that need to be fulfilled like,

1. The requirement or problem, we need to identify the problem which is lying among employees like the course like “documentation”, here the freshers must not know how to document each and everything in a factory and they should be trained. Here the problem arises and in the same way, we need to find the requirements.
2. Finding the trainer is the second step as this considers the most difficult task of all. Cause, the trainer needs to be feet with the requirements of the company authority for example, it has been seen that all content is provided by the HR department in the meeting with that trainer but while giving the lecture in the training the trainer changes the content in oral speech and it not only dissapointed the higher authority but also was not beneficial for the participants.
3. The next task is creating content. Here one thing needs to be mentioned the trainer already has his or her pre-made content but many times it doesn't match the requirement of the company and that needs to be modified, which is not easy.
4. There are several steps that training needs to be completed and here the authority has to fix it by discussing it with the trainer. The trainer also can suggest many things and those can be considered while making a decision.
5. When the evaluation comes, the participants evaluate the training. Here one thing is the evaluation of technical skills will take some time as they have to see the output in real life but some soft skills like communication or documentation will be evaluated within a quick period of time. There are two steps of evaluation first one is pre-evaluation, which occurs center of the training and helps the authority to know the ongoing situation



basically it happens in an MCQ format but the post-evaluation, there will be some explanatory answers for participants as it is more important than the previous one.

But when SQUARE Pharmaceutical takes any initiative about the training they have to go through Training Needs Analysis (TNA). Training Needs Analysis (TNA) is the process in which the company identifies the training and development needs of its employees so that they can do their job effectively. (*What Is Training Needs Analysis? Definition of Training Needs Analysis, Training Needs Analysis Meaning - the Economic Times*, n.d.) Here they have to understand the job itself or they have to have an idea of how that work will be done. Then they also have to know that the behavior that particular employees will need like for sales communication will be excellent but for the factory, the employees need technical and documentation skills instead of communication. The main part comes that in which part the employee needs improvement and TNA identifies that based on the job.

Another name of TNA is the Employee Development Program (EDP), one thing that needs to be mentioned is the behavioral skills many times employees learn from the supervisor but sometimes it is trained by HR.

Different techniques are associated with training like attached with seniors, one weeklong training for functional activities, and the training schedule with duration depends on the importance of the training a machine costs over one billion dollars, and for that, the operating training will take time otherwise the machine will be damaged or missfunctioned.

For the training, the team has to maintain a calendar, the in-house training requires less time to manage as the speakers are from the company but the external like national and abroad-based training needs a great amount of time and effort to manage everything including the transport, hotel and other accommodations of the employees.

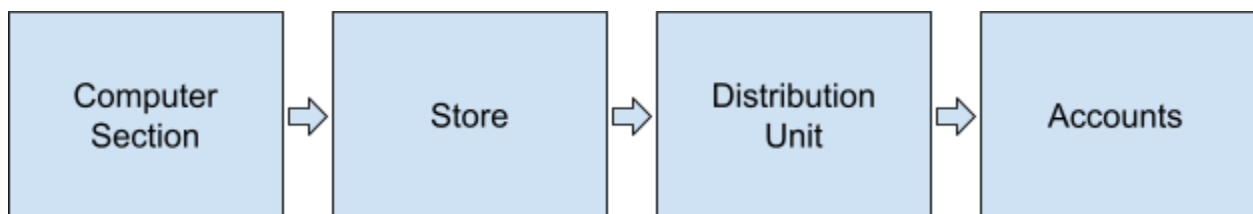
As SQUARE Pharmaceuticals works in a sophisticated industry the employees also have to have an idea regarding the Factory Assessment Test (FAT). In the production and quality checking also assurance units all activities are so technical that, easily the seniors can easily take advantage of this with the HR department and provide their favorite employee's name for training abroad instead of who needs it and here to reduce the biases the HR personals not only have the knowledge but also they communicate with others of that department to ensure the training requisition.

The feedback part is also important as, if we don't know how the training is impacting the employees from an overall aspect then there is no meaning to conduct it. The procedure of feedback is divided into four terms,

1. Reaction: Here we count whether are they enjoying the training or not.
2. Learning: Here the outcome can differ like, for SAP software the employee instantly can operate and show us his or her learning but for technical activities like operating a machine in a factory it not only will take time but also be associated with a great amount of loss.
3. Behavioral: This training takes some additional activities like applied tasks.
4. Return of Investment (ROI):The HR department must determine and demonstrate to the audit department that the company's investment will pay off by creating an achievement report.

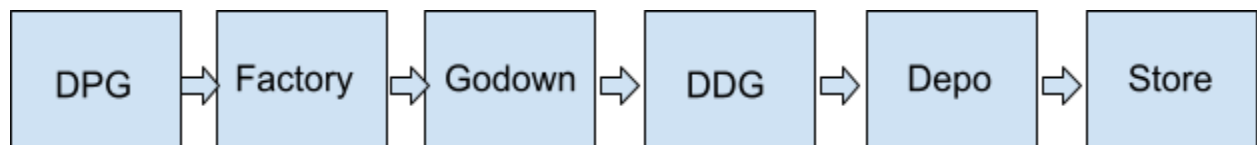
#### **Insurance, payroll, and distribution Operations:**

After the production of medicine, the main task is a flawless distribution here for SQUARE Pharma. There are two plants in Bangladesh one is in Dhaka Gazipur, and the other one is the Pabna plant, these are the factories where medicines are made. The Dhaka plant is FDA-certified. The products are supplied to twenty-six Depo in twenty-six districts in Bangladesh first. Then they distribute them to stores, here they also do a trend analysis because there is more need than the production capacity and for that reason, they have to understand the real needs of the people in different areas before they distribute cause all sellers will say the same thing that they need more than others this is called rationality checking.



As per the flow chart above mentioned in SQUARE Pharma, at Depo, there are several sections the first one is the computer section, from the sales department the needs are mentioned, and on

the basis of that the order is given with making invoice also they check the rationality here. The boxes are stored from the production unit to Depo in the second part. From the distribution unit, the products are packed into small boxes for retail stores. Here blue-collar employees like drivers and helpers are also added to this work. The small trucks are loaded with valuable medicines, which are valued high for the retail market and to protect that truck there are two people at least needed. The accounts section is related to the last cause, after selling medicines to the retail shop the money must be handed over to the company, and the accounts do that. Here one thing is important to mention, all retail shops use the same software to input the sales and the name of the software is “Electronic Sales Order” (ESO), by this the accounts of the company are able to know that the sales executive handed over the boxes o the medicines already.



In the above-mentioned flowchart, the factory knows the raw demand of the market that is drawn. The DPG employees know about the demand from the retail stores all over Bangladesh then they make a copy that goes to the factory and after that, they do their production activity and hand over the final product to godown and the cycle starts again from Depo to store.

For the insurance, after joining the company two accounts are created against that employee at Guardian and Pragati Life Insurance by the company. The company closes these accounts when the employee dies. According to child labor law, the company cannot open these kinds of accounts before the age of eighteen and the company also cannot open them for after sixty aged people. The insurance can cover the below-mentioned disasters,

- Accidental death
- Permanent Disability (PTD)
- Partial Disability (PPD)
- Major Disease Benefit (MDB)
- Family Plan Incentive (FPZ)

For the treatment of any major diseases the employee and the family members of him or her got an amount from the welfare fund.

In the payroll section, they use the software SAP. Besides the SAP, they also use another software called HCMS. Here they also count the increment with all data of employees.

### **Field Force Management**

The field force management deals with all the HR-based activities of field-level white-collar employees. In SQUARE Pharma, there are mainly three types of products they market and they are,

1. Human Medicine
2. Agrovet / Medicines for Animals & Birds
3. Crop Care / Pesticide Division

The field-level employees who counted as white-color for the above-mentioned categories will work for sales-related activities and only the delivery part is the same here, apart from that other activities vary. The main tasks of these employees are to promote the product in retail stores. The three field forces have different names and designations and those are,

1. **Medical Promotion Officer (MPO):** These people, we have seen them in different hospitals, chambers of doctors, and in chemist shops. They only promote human medicines there.
2. **Sales Promotion Officer (SPO):** These employees promote only animal medicines to their related fields.
3. **Sales Development Officer (SDO):** These employees promote crop-related medicines and pesticides to the related field.

The officers who work in urban places have a break during their working hours at 1 p.m. and they go home from work at almost 1 a.m. On the other hand, in rural places, who will get posting, they will not have any break but their working hour ends at 1 p.m.

### **Job Confirmation and Regularization Process:**

In the confirmation process, at the factory, the employees have to take an exam after 5 months of joining and if the employee can't pass the exam then he or she has to retake the exam again and again. After passing the exam, there will be a self-assessment by that employee to check their honesty and rationality. After this self-assessment, there will be a viva session and then it'll be confirmed.

There are two types of job regularization: one with an appointment letter and the second without an appointment letter. Those who have an appointment letter will after one or two years of work, with a viva, if the supervisor report approves them. On a daily basis, workers mainly join based on without the appointment letter.

### **Employee Separation and Exit Interview:**

When the relationship between the employee and the company ends, that profounds as separation. Here the reasons can be many but it is confirmed at the exit interview. In some cases, the company asks to resign and there is no need to give early notice of resignation from the employee otherwise the employee has to submit a notice before one month of leaving, or his or her basic salary of that month will be deducted.

### **Information system or SAP of the organization:**

The software they use here is called SAP. This software is used as a database of every activity regarding the employees of SQUARE Pharmaceutical PLC. There are different employee groups that are referred by codes and the groups are,

- Daily SPL: The daily basis employees, who are hired by in-house procedure.
- Daily outsiders: The daily basis employee but hired by the external procedure.

- Apprentice: The employees, who'll only work for 3 to 6 months.
- Probationary: These employees only get their salary for the first six months and after that if they become permanent employees then they get all benefits.
- Temporary: These types of employees will fall under further sub-categories as there can be permanent temporary employees and contractual temporary employees, who will be able to renew the contract for one year again.

In the SAP software, the permanent employees are divided into two parts management employees and non-management employees, the management employee's grade starts from m1-m16, and for non-management employees, the grades are n1-n8 for corporate headquarters, D1-D6 for distribution, and S1-S6 field activities.

The software can be accessed by one person at a time and the codes are here used called Personal Action (PA40). The hiring ID is the finding tool for each employee as it is unique. PA40 is used for increasing probation, job confirmation, increased grades, transfer, absence, extent period, deportation, and promotion. PA30 is another code and it is used to know detailed info about the employee. There are several reports that are uploaded here in Excel format and to watch those reports we need a T-code those are,

- ZHR-Action-history (All history)
- ZHR-Promotion (Any promotion)
- ZHR-Transfer (Any transfer)
- ZHR-Time (In & Out of employees)
- ZHR-Employee master

## 2.16 Marketing

In the pharmaceutical industry, the marketing activities are relationship marketing. The pharmaceutical companies just cannot do the traditional marketing or branding-related activities like other industries like Telecom or FMCG. Like all companies, the pharmaceutical industries also have their core target customer and they are doctors. In Bangladesh, the operators of chemist shops are also medicine providers and that is why, they are the secondary customers here. The common people are their target. By law, these companies cannot do any public event by promoting their product that directly influences the health of humans. Here the companies appoint promotion officers or sales executives for their three kinds of products human, agro-vet, and pesticide-related products. The sales executives here directly approach the doctors with all the benefits and USPs of their product as the doctor also wants to know why he or she will prescribe it then, the executives have to be ready for all kinds of answers to ensure the reliability of the product. The quality of the product also matters here cause otherwise, the doctor will not prescribe the medicine again if there are several complaints from patients.



Dhaka Plant Unit-5 of SQUARE Pharmaceuticals PLC.

## 2.17 Financial Overview of the company

<b>Business Results:</b>	<b>2021-2022</b>	<b>2020-2021</b>	<b>2019-2020</b>	<b>2018-2019</b>	<b>2017-2018</b>
Gross Revenue	66,406,960	58,346,258	52,926,219	44,595,486	34,573,391
Value Added Tax	8,809,019	7,643,229	7,049,770	5,909,831	4,568,416
Net Revenue	57,597,941	50,703,029	45,876,449	38,685,656	30,004,975
Gross Profit	29,639,914	25,902,993	23,339,779	18,974,590	14,406,366
Net Profit (Before Tax)	21,024,560	18,755,933	17,185,382	13,965,289	10,825,055
Net Profit (After Tax)	16,417,497	14,743,265	12,955,974	10,562,864	8,219,526
Net Assets Value (NAV)	93,007,355	82,217,575	69,909,802	60,806,055	46,662,876
Total Assets	97,535,187	86,602,384	74,350,804	65,061,673	53,329,313
Total Bank Borrowings	-	-	-	-	-
Total Current Assets	62,748,424	54,945,934	46,886,758	38,291,545	27,196,589
Total Current Liabilities	3,349,091	3,109,956	3,228,073	2,961,271	5,539,791
Current Ratio	18.74	17.67	14.52	12.93	4.91
Net Assets Value per Share (NAV)	104.92	92.75	78.86	68.59	52.64
Net Operating Cash Flow per Share	13.93	12.27	12.29	14.20	10.70
EPS-Earnings per Share (SPL)	18.52	16.63	14.62	11.92	9.27
EPS-Earnings per Share (Consolidated)	20.51	17.99	15.06	14.27	13.09
EPS at Original Capital at IPO	1,641.75	1,474.33	1,295.60	1,056.29	821.95
Quoted Price per Share - DSE	216.70	215.50	172.50	264.30	293.10
Quoted Price per Share - CSE	216.90	215.60	172.50	264.90	292.80
Price Earnings Ratio-DSE (Time)	11.70	12.96	11.24	21.13	30.09
Price Earnings Ratio-CSE (Time)	11.71	12.96	11.24	21.18	30.06
Market Capitalization-DSE (in billion)	192.09	191.03	145.63	208.53	216.13
Market Capitalization-CSE (in billion)	192.27	191.12	145.63	209.00	215.91
Shares Outstanding	886,451,010	886,451,010	844,239,058	789,008,466	737,391,090
Face Value per Share	10.00	10.00	10.00	10.00	10.00
Dividend (Cash)	100%	60%	47%	42%	36%
Dividend (Stock)	0%	0%	5%	7%	7%
Dividend Payout (in '000)	8,864,510	5,318,706	4,390,043	3,866,141	3,170,782
<b>Shareholders:</b>	<b>2021-2022</b>	<b>2020-2021</b>	<b>2019-2020</b>	<b>2018-2019</b>	<b>2017-2018</b>
Sponsors/Directors	5	5	5	5	5
Financial & Other Institution	1,126	1,211	916	927	825
Foreign Investors	70	90	91	118	107
General Public	75,363	75,233	60,251	56,570	54,925
Total -	76,564	76,539	61,263	57,620	55,863
<b>Employees:</b>	<b>2021-2022</b>	<b>2020-2021</b>	<b>2019-2020</b>	<b>2018-2019</b>	<b>2017-2018</b>
Executives	5,747	5,205	4,644	4,350	3,833
Non Executives	2,514	2,746	2,612	2,099	2,108
Workers	2,938	2,559	2,570	2,785	2,191
Total -	11,199	10,510	9,826	9,234	8,132

Figure is taken from Annual Report (21-22) of SPL

### Overall:

The company's financial records over the last five years demonstrate consistent growth. Between 2017–2018 and 2021–2022, gross sales climbed by 93%, while net profit increased by 64%. Both total assets and net asset value (NAV) have dramatically grown, by 100% and 84%, respectively.



## **Revenue and Profitability**

Over the last five years, the company's profitability ratios have likewise increased. Return on equity (ROE) went from 23.0% to 21.8%, while the gross profit margin improved from 41.6% to 44.4%. The net profit margin also increased from 31.3% to 28.4%. These ratios show that the business is getting better at turning a profit.

Consolidated Revenue from Operations increased from Tk. 58.35 billion to Tk. 66.41 billion, a 13.81% increase. NET In comparison to the previous year's profit after tax of Tk. 15.95 billion, it increased by 13.98% to Tk. 18.18 billion. Earnings per Share, or EPS, were BDT 20.51 in comparison to Tk. 17.99 in the prior year. Retained Earnings increased from Tk. 78.75 billion in 2020–2021 to Tk. 91.61 billion in 2021–2022. Between 2020–2021 and 2021–2022, gross revenue increased by 14%, and net revenue increased by 13%. Over the previous five years, both the gross and net profit margins have somewhat increased.

For the fiscal year that concluded on June 30, 2022, the Standalone Revenue from Operations increased by 13.81% to Tk. 66.41 billion from Tk. 58.35 billion in the prior year. In comparison to the prior year's Net Profit after Tax of Tk. 14.74 billion, it climbed by 11.41% to Tk. 16.42 billion. EPS was Tk. 18.52 in 2021–2022, up from Tk. 16.63 in the prior year. Compared to Tk. 70.07 billion in 2020-2021, Retained Earnings were Tk. 81.17 billion in 2021-2022.

## **Position and growth in this sector:**

Square Pharma has held the top spot in the nation's pharma sector for several decades thanks to consistently improving operational, financial, and profitability performance.

Analysts and industry experts predict that Bangladesh's pharmaceutical market is set to take off and grow three-fold in the next decade to reach a yearly value of BDT 1,000 crore. The pharmaceutical industry is the second largest taxpayer in Bangladesh and the 265 companies recognized by the Directorate of Drug Administration (DGDA) as manufacturers of

pharmaceuticals meet 97% of the local pharmaceutical demand. The industry is also expanding its export of medicines, which has seen a significant increase in the last fiscal year. According to data from the export promotion bureau, local pharmaceutical companies exported their products worth US\$ 163,83 million in the July to April period of the 2021-22 fiscal year, which is an increase of 27% compared to the same period of the previous year. Bangladesh can become a world-class player by focusing on the Pharemerging market, which is expected to grow at a CAGR of 3 to 6% over the next five years. However, modern technologies such as Machine Learning, AI, and Biopharma must be adopted in order to compete with the developed markets. The 2Q 2022 IMS Plus Pharmaceuticals Market Size decreased by 3,85% compared to the 2Q of 2021 with a positive growth of 18,66%. During the 2Q MAT of 2021 (from July 2020 to June 2021), there was an exceptional growth in the market of 18,66%, driven by various COVID-related products such as azithromycin, calcium, ascorbic acid, chlorocresol, and chlorhexidine, which increased in sales by 14.41%, 25.90%, 19.57%, 28.77%, and 66.48%, respectively. During the peak of COVID, these molecules were used at an increased rate, but since July 2021-June 2022, there has been a significant decrease in the number of primary patients with the disease (and even hospitalizations) due to increased health precaution awareness among the population, such as wearing masks and washing hands. Inflation is rising on a daily basis, so fewer patients are willing to undergo routine tests unless they are mandatory. However, the compound annual growth rate for the last 5 years (2018 – 2022), the national market growth rate, and the growth rate of Square Pharma was 7.12%, 3.85%, and 4.69%, respectively.

## **Liquidity**

The firm's liquidity ratios are sound as well. 18.74 is the current ratio, which is more than the advised threshold of 2. This shows that the business's current assets are sufficient to satisfy its short-term commitments.

## **Solvency**

The corporation has good solvency ratios. The corporation has no debt since the debt-to-equity ratio is zero. This financial situation is quite sound. The company's financial performance is excellent overall. The business is financially sound, lucrative, and expanding gradually.

## **Areas for Improvement**

The business could do better in a few areas, including the dividend payout ratio. The current dividend payout ratio is 36%, which is lower than the sector average of 50%. This indicates that the firm is keeping a larger portion of its profits, which can restrict its ability to expand. The organization might also make improvements in terms of staff productivity. The income generated by the firm per employee dropped from \$6,318 in 2017–2018 to \$6,044 in 2021–2022. This suggests that staff productivity at the organization is declining.

## **Recommendations**

In order to bring its dividend payment ratio closer to the industry norm, the firm should think about doing so. As a result, stockholders would stand to gain more from the business's success. The business should prioritize raising staff productivity. This might be accomplished by introducing new technology or by funding training and development initiatives.

## **EVA valuation:**

To calculate Economic Value Added (EVA), we need the following information:

- Net Operating Profit After Tax (NOPAT)
- Weighted Average Cost of Capital (WACC)

- Capital Invested

NOPAT can be calculated by subtracting tax expenses from operating profit.

WACC is a measure of the cost of capital to a company. It is calculated by taking a weighted average of the cost of equity and the cost of debt.

Capital Invested is the total amount of capital that a company has invested in its business operations. This includes both equity and debt.

Once we have this information, we can calculate EVA using the following formula:

$$\text{EVA} = \text{NOPAT} - (\text{WACC} * \text{Capital Invested})$$

Using the information provided in the business results, we can calculate the following EVA for each year:

Year	NOPAT	WACC	Capital Invested	EVA
2021-2022	16,417,497	10%	97,535,187	6,691,946
2020-2021	14,743,265	10%	86,602,384	6,077,026
2019-2020	12,955,974	10%	74,350,804	5,520,890
2018-2019	10,562,864	10%	65,061,673	4,056,688
2017-2018	8,219,526	10%	53,329,313	2,886,583

The company's EVA has been rising recently, as you can see. This is encouraging since it shows that the business is adding value for its stockholders.

It's crucial to remember that EVA is only one metric for assessing a company's financial success. When assessing a company's investment potential, additional aspects such as revenue growth and profit margins should also be taken into account.

## MVA valuation:

To calculate Market Value Added (MVA), we need the following information:

- Market Capitalization
- Book Value of Equity

The total market value of a company's outstanding shares is known as market capitalization. It is computed by dividing the share price at the time by the total number of outstanding shares. (*Market Cap Vs Enterprise Value: What's the Difference?*, n.d.)

The equity value listed on a company's balance sheet is known as the book value of equity. It is computed by deducting the company's assets from all liabilities. (*Market Cap Vs Enterprise Value: What's the Difference?*, n.d.)

Once we have this information, we can calculate MVA using the following formula:

$$\text{MVA} = \text{Market Capitalization} - \text{Book Value of Equity}$$

Year	Market Capitalization	Book Value of Equity	MVA
2021-2022	192.09 billion	93.007 billion	99.083 billion
2020-2021	191.03 billion	82.217 billion	108.813 billion
2019-2020	145.63 billion	69.909 billion	75.721 billion
2018-2019	208.53 billion	60.806 billion	147.724 billion
2017-2018	216.13 billion	46.663 billion	169.467 billion

The company's MVA has been rising recently, as you can see. This is encouraging since it shows that the company's market value is growing more quickly than its book value. This may be the result of a variety of things, such as improved profitability, expansion opportunities, or investor confidence.

It's vital to remember that MVA is only one metric for determining a company's worth. When assessing a company's investment potential, additional aspects including revenue growth, profit margins, and the competitive environment should also be taken into account.

### **Depreciation:**

When an asset is placed in the location and condition required for it to function as planned by management, or when it is ready for use, depreciation of that asset begins. An asset's depreciation ends when it is classed as being held for sale or is disposed of, whichever comes first. According to IFRS 5 - Non-current Assets Held for Sale, a collection of assets is categorized as being "held for sale" Operations that have been discontinued as well as the asset's derecognition date. Since freehold land is thought to have an endless useful life, it is not devalued. For all of its depreciable assets, the company uses the decreasing balance approach to calculate depreciation. The following table lists the depreciation rates for several groups of depreciable assets:

<b>Asset Category</b>	<b>Rate</b>	<b>Asset Category</b>	<b>Rate</b>
Building and Other Constructions	10%	Electrical Installation	15%
Boundary Wall	10%	Gas Line Installation	15%
Plant & Machinery	15%	Books and Periodicals	30%
Laboratory Equipment	10%	Electro-Mechanical Equipment	15%
Office Equipment	10%	Software	20%
Furniture & Fixture	10%	Computer and VSAT	10%
Motor Vehicle	20%	Motor Cycle	20%

After each financial year, the depreciation method, useful life, and residual values are examined and, if necessary, changed. On a pro-rata basis, that is, from (up to) the date the asset is available for use (disposed of), depreciation is granted on additions (disposals).

### **Derecognition**

When an asset is sold or when no longer expected to provide financial advantages, it is no longer recognized as an asset. The cost of the asset is sold, together with any associated accumulated

depreciation and impairments are eliminated from the financial statements, and the net amount—less any proceeds—is transferred to the statement of profit or loss.

## 2.18 Conclusion

The drug area in Bangladesh is one of the country's most mechanically capable ventures and has gone through a momentous change from being import-subordinate during the 1980s to becoming independent and serving the worldwide market. The business' capability and expertise were obvious during the Coronavirus pandemic when it immediately adjusted to startling difficulties and met homegrown as well as global interest for coronavirus-related drugs. Bangladesh's drug industry is ready to turn into a middle for nonexclusive medications because of the Outings patent waiver. The enlistment and ability-obtaining process at Square Pharma is all-around organized and effective. The organization utilizes various techniques to source applicants, including inner obtaining, outer obtaining, and scouting. The organization additionally leads composed tests and vivas to survey the abilities and information of applicants. After qualifying in composed and viva, up-and-comers are expected to go through a clinical trial. On the off chance that the competitor passes all means, they are made a bid for employment. The organization's enlistment interaction is intended to recognize and employ the most ideal contender to make it happen. The organization likewise does whatever it may take to guarantee that the enlistment cycle is fair and impartial. The award of the board framework at Square Drug is intended to compensate representatives for their remarkable work and to rouse them to be more useful. The framework depends on Key Performance Indicator (KPIs), which are different for every area and work. Workers are assessed on their presentation against their KPIs, and their managers additionally rate their exhibition. The HR division then, at that point, cross-actually looks at each of the information from the data set to guarantee that the examination is fair and exact. Pay at Square Drug depends on various elements, including expansion, the average cost for many everyday items in the city where the worker works, and the cutthroat strength of the organization. The organization likewise considers the compensation scales set by the public authority. Generally speaking, the award the board framework at Square Pharma is intended to guarantee that representatives are genuinely made up for their work and that they are propelled to be more useful. The drug business in Bangladesh has a remarkable promoting scene that expects organizations to embrace imaginative and moral systems. By zeroing in on building associations with medical services experts and giving excellent items, drug organizations can make progress in this market. Also, drug organizations can further develop their representative marking



exercises by drawing in with potential workers from the beginning in their professions. All in all, the drug area in Bangladesh is a flourishing industry with a brilliant future. Assuming an undeniably significant part in the worldwide drug market, especially in the creation and supply of nonexclusive drugs is ready.

# **Chapter 3**

## **Micro-Learning Blessing for Gen Z**

## 3.1 Introduction

Although the idea of microlearning has been around for millennia, Research Studios Austria was the first to use the word in 2003. A learning strategy called microlearning includes providing learners with brief bursts of tiny, targeted learning modules. It may be used to teach a variety of topics and is created to be effective and interesting. Here is a synopsis of the development of microlearning along with citations: A.D. 1900: The idea of programmed teaching was conceived by the psychologist and behaviorist B.F. Skinner. A form of microlearning called programmed teaching includes segmenting difficult tasks into manageable chunks and giving students quick feedback. Microteaching was created as a method of teacher preparation in the 1960s. Microteaching is offering teachers feedback on their performance and cutting down teaching responsibilities into little, digestible bits. 1980s: As computer-based training (CBT) became more popular, the first microlearning modules were created. The majority of CBT lessons are brief, interactive, and self-paced. (*VIVA Engage: Work Smarter, Work Together*, n.d.) The 1990s: Delivering microlearning modules to students anywhere in the globe is now feasible because of the internet, which has revolutionized education. 2000s: The concept of "microlearning" is introduced, and it quickly gains popularity, particularly in the workplace. With the advent of mobile learning platforms, distributing microlearning materials to learners who are on the go has never been simpler. 2010s-present: The popularity of microlearning keeps rising as a result of people's longer attention spans and the development of a workplace learning culture. Microlearning experiences are being improved by utilizing new technologies like virtual reality (VR) and artificial intelligence (AI).

Microlearning is a method of learning that divides lengthy subjects into manageable, minute-long learning pieces. Several forms, including brief films, essays, infographics, or interactive games, are available for delivering micro-learning units. They are perfect for busy students because they are often made to be consumed on demand and any device. The application of microlearning to provide education and training to learners all around the world is referred to as microlearning from a global viewpoint. Since microlearning is effective, adaptable, and accessible, it is especially well-suited for global learning. Although micro-learning is a relatively new idea, it is fast gaining acceptance on a global scale. This is partly a result of the

workplace's growing globalization and learners' desire for rapid and simple access to new knowledge. Many firms all around the world utilize microlearning to provide learning and training to their employees and clients. For instance, Google employs microlearning to instruct its staff members on fresh features and products. Microsoft trains its users on how to utilize its products through microlearning. (De Gagné et al., 2019)

Additionally, LinkedIn employs microlearning to provide its users with possibilities for professional advancement. Because microlearning may be customized for many linguistic and cultural contexts, it is appropriate for a worldwide audience. Microlearning modules, for instance, can be adapted to include cultural allusions or translated into several languages. Additionally, microlearning modules may be created to be usable by students with various degrees of literacy and technological proficiency. Microlearning may also be utilized to distribute educational materials to students with varying degrees of technological access. Microlearning modules, for instance, may be distributed via mobile devices, making them available to students in impoverished nations who might not have access to computers. The ability to give microlearning in a variety of languages is one of its main advantages for global learning. This is crucial because it enables students to access educational materials in their mother tongue, which can enhance understanding and retention. The ability to give microlearning to students in many time zones is another advantage for global learning. This is significant because it enables students to access educational materials from anywhere in the globe at any time. Around the world, micro-learning is employed in several educational and training contexts. For instance, international corporations utilize micro-learning to: Train staff members on new software or procedures, and teach pupils new ideas or abilities through international online courses, Continuing education for medical practitioners should be made available in poor nations. Educate consumers about new goods or services available in international marketplaces. (Dan.com, n.d.)

## 3.2 Background Study:

Microlearning is a kind of education that covers a lot of material quickly while keeping the learning objectives modest and precise. It is frequently distributed digitally, such as through films, e-learning courses, or mobile apps. Microlearning may be used to teach a variety of subjects, from simple abilities to intricate ideas. They may be used to teach a range of skills and knowledge and are designed to be finished quickly, usually in 5 to 10 minutes. Microlearning programs are created by various institutions in various methods. Typical strategies include: creating internal microlearning programs. In this strategy, the instructional designers and developers of the institution themselves create and provide the microlearning material. Although this method might be expensive and time-consuming, it gives the institution total control over the design and execution of its micro-learning programs. Subject matter experts (SMEs) are professionals with specialized knowledge who may create microlearning programs based on their knowledge and experience. These SMEs are capable of producing material, planning activities, and creating evaluations. collaborating with outside vendors. A variety of outside companies provide platforms and material for microlearning. In terms of time and money, collaborating with an outside vendor might be a more efficient method to create and execute microlearning programs. However, it's crucial to pick a provider wisely who can provide top-notch material on a platform that is appropriate for the institution's requirements. utilizing open-source tools. A variety of open-source microlearning resources are available, including learning management systems that facilitate microlearning as well as tools for producing and distributing microlearning content. Creating and delivering microlearning programs may be extremely inexpensively done by utilizing open-source materials. To properly use and execute open-source materials, it is vital to possess the requisite competence. Partnerships, To create and implement microlearning programs, some institutions collaborate with other institutions or organizations. By using this strategy, institutions may be able to share resources and knowledge and connect with more people. Some institutions employ open educational resources (OERs) to design and deliver their microlearning programs. Online educational resources, or OERs, are accessible to the general public without charge. Finding high-quality OERs that are in line with the particular requirements of the school and its students might be difficult, despite the potential cost-effectiveness of this strategy.

Examples of how different institutions have formed micro-learning programs globally, A variety of microlearning initiatives have been created internally at the University of California, Berkeley, including the "Berkeley Bites" series of short movies that teach anything from academic writing to personal finance. Through its Berkeley Extension program, the University of California, Berkeley provides a variety of microlearning opportunities. These courses are intended to aid working professionals in quickly picking up new abilities and information. Berkeley Extension, for instance, has a microlearning course on "Data Science for Beginners." Students will master the fundamentals of data science, including data collecting, data analysis, and machine learning, through this curriculum. To provide a variety of microlearning courses on subjects like data science and cloud computing, Microsoft has teamed with the outside vendor Coursera. Microsoft also employs a range of techniques to create microlearning programs for its users, both consumers and workers. Creating partnerships with outside suppliers is one strategy. Microsoft has collaborated with several businesses to provide micro-learning courses on a range of subjects, including management, sales, and marketing. For instance, LinkedIn Learning and Microsoft collaborated to build the "Sales Essentials" micro-learning program. A non-profit company called The Khan Academy provides a huge selection of free micro-learning courses on subjects including math, physics, and history. Google: Google develops microlearning programs for its workers using a range of techniques. Using internal expertise is one strategy. Many SMEs at Google create micro-learning programs based on their expertise and skills. For instance, a team of Google employees created the "Learn to Code" micro-learning software. IBM: To create micro-learning programs for its workers and clients, IBM combines internal knowledge with collaborations with other organizations. For instance, a group of IBM engineers and data scientists created the micro-learning program "Watson for Beginners" for the company. IBM also collaborates with outside providers to provide micro-learning courses on a range of subjects, including cybersecurity, cloud computing, and artificial intelligence. A range of micro-courses on subjects including health, engineering, and the arts are now available thanks to a collaboration between the University of Pennsylvania and the online learning platform Coursera. On subjects including public health and disease prevention, the World Health Organization has created a variety of micro-learning courses. On the WHO website, the courses are free to access. (Behringer, 2013)

A style of instructional design known as microlearning distributes learning material in brief, concentrated bursts. Due to its efficiency in imparting new skills and information, it is frequently used for workplace training and education. Microlearning does, however, have significant disadvantages. A disadvantage of microlearning is that it might be challenging to cover complicated subjects in a short period. This is because microlearning courses are sometimes only a few minutes or even seconds long. Because of this, students might not have the time to comprehend and grasp complicated ideas completely. It can be challenging to hold learners' attention for brief periods of learning, which is another disadvantage of microlearning. This is due to the possibility that students may get more easily distracted or bored when pushed to learn something new quickly. (Cloke, 2022)

Microlearning courses are frequently brief and narrowly targeted, which might reduce the depth of learning. A microlearning module on how to create a resume, for instance, could be able to teach the learner the fundamental stages of the procedure, but it might not be able to provide the student with the in-depth information and skills needed to generate a resume that stands out from the competitors. Microlearning modules are frequently presented in a vacuum, without any explanation of how the material fits into a bigger picture. For instance, a microlearning module on the Pythagorean theorem may instruct the student on how to determine the length of a hypotenuse, but it might not discuss the significance of the theory or how it is applied in daily life. Microlearning modules are frequently self-paced and asynchronous, preventing students from interacting with teachers or other students. This might make it challenging for students to seek assistance with complex ideas or to stay motivated and interested. (Giurgiu, 2017)

Although a microlearning module on how to use a new software program may teach students the fundamental processes needed to complete a task, it might not provide them the chance to utilize the application in a practical environment. Because of this, students who must utilize the program for work purposes may feel uncertain about how to do so. A microlearning module on a complicated subject like artificial intelligence could provide learners with a broad overview of the subject, but it might not give them the depth of information they need to comprehend how the technology functions or how it might be used in practical situations. This may hinder students' capacity to master skills linked to AI. When a microlearning lesson on a subject like compliance training is provided asynchronously, learners might not have the chance to ask questions or seek

clarification from an instructor. Because of this, students could make mistakes or not comprehend the compliance requirements completely. While a student may utilize microlearning modules to study for a test, they could not give the student a thorough comprehension of the subject, which could cause the student to rapidly forget the content. A professional may utilize microlearning modules to keep current on market trends, but the modules might not give the professional the chance to network with and learn from other professionals. (Tarancova, 2021)

No recognized group officially opposes and rejects microlearning. In fact, because of its many benefits, including adaptability, accessibility, and efficacy, micro-learning is becoming more and more common in businesses of all kinds. Some organizations are opposed to the idea of microlearning and do not use it. One factor is that micro-learning is frequently viewed as a fad or a temporary solution to training problems. Some businesses think that microlearning can't give employees the depth of information and comprehension needed for challenging jobs or abilities. Furthermore, according to some businesses, micro-learning is too fragmented, and disconnected, and does not offer a comprehensive learning experience. The lack of resources or skills to create and administer successful micro-learning programs is another reason why some firms choose not to adopt micro-learning. Producing microlearning may take a lot of time and money, and it needs to be well-planned and designed to be successful. For several reasons, some businesses can be reluctant to implement microlearning. For instance, some businesses might worry that microlearning is less efficient than conventional training techniques like live workshops or online courses. Some people might be worried about how much money and effort it will take to create and implement microlearning programs. Additionally, some businesses can just be ignorant of the advantages of microlearning. In these circumstances, learning and development specialists must inform managers and staff members about the benefits of microlearning and how it may help them achieve their objectives. (Author, 2020)

While no known institution is expressly opposed to microlearning, certain companies may be wary of using it for several different reasons. Leaders and workers need to be informed about the advantages of microlearning and how it can be utilized to support learning and development objectives, thus learning and development experts must do this. Employee training via micro-learning has been proven to be successful for a range of activities and abilities. However,



it is crucial to carefully and consciously integrate microlearning and make sure that it is in line with the organization's overall training goals and objectives.

I was permitted by SQUARE Pharmaceuticals Public Limited PLC. to do a three-month paid internship at their human resource management division in the learning and development team at the SQUARE Center headquarters at 48 Mohakhali, Dhaka, Bangladesh. Other divisions include field force management, recruiting and talent acquisition, and HR information systems (IS). My supervisor here was Mr. Md Shahidul Alam, the senior manager of the HR division, who mentored me throughout these months. The duties of the position were Name suggestions and the use of microlearning materials for staff members of the organization are handled by the learning and development team. conducting extensive investigations to find microlearning material. collecting visuals for the material, such as images, movies, and music that relate to the theme. The video module must be created following all microlearning ideas, be one minute long, employ simple Bangla, be short in length, and include a variety of colors and word styles. I must obtain feedback from superiors and the relevant department with task matches, such as doctors from the Medical Service Department for concerns about human health. Abdur Rahman, the executive of the HR department, received them after I had read through all the evaluations and the finished text, and he published them using MPS software. The learning and development team I worked on is coordinated by a Senior HR Manager who is also my supervisor reporting to Mr. Shahidul Alam. A key aspect of the task force was the gradual improvement of the employees of SQUARE Pharmaceuticals PLC. For example, various short-, medium-, and long-term training centers located at home and abroad, also offer employees the opportunity to access and organize various seminars throughout the country and abroad. It is worth mentioning here that microlearning is also one of the tasks of this team because the content under it provides information during non-productive times to increase productivity in various sectors, and I worked here on the development of their content. Here I developed fifty-six video micro-learning modules, as I had to do extensive secondary research on the Internet and newspaper and magazine articles to develop the content base. In addition, I worked in the recruitment and talent acquisition team and gained hands-on experience from job searches to staffing. I also sorted CVs, invited phone auditions, introduced candidates, helped with written exams and vivas, internal review files and final proposals sent them for health checks and received updates on

potential employees, etc. The recruitment and talent acquisition team is headed by Nurul Islam, HR Manager, SQUARE Pharmaceuticals. In addition to the above, the following advice is given especially to the potential medical intern with a business background: Try to improve your transferable skills. The content of microlearning must be short, small, easy to understand information, well understood by all categories of people in the office, from blue collar to white collar, and socially acceptable for these workers, these things must be paid attention to. when making modules. In addition, I used visual and sound effects targeting the topics, and this was necessary because the audience could easily and quickly understand even from a distance. In the first week of my internship, I learned the art of making microlearning modules because these contents are different from others. Microlearning modules are reviewed at different stages because they contain different important information such as medical issues, technical knowledge, and behavioral information. For these evaluations, I have to coordinate and attend meetings with human medicine doctors in health, agro vet in agriculture, and senior officials in my department such as supervisors and senior managers.

Overall, microlearning can be a useful method for transferring knowledge, but it's crucial to be aware of its limitations. The requirements of the learners should be taken into account while creating microlearning modules, and it is crucial to make sure that the modules are connected with other learning activities that can offer context, depth, and engagement. Microlearning might be challenging to evaluate. This is such that it is not always clear how much learning has occurred in a brief lesson. Because of this, it can be challenging to establish whether microlearning is a successful method for imparting new knowledge and skills to learners.

### 3.3 Research Objective:

1. Examine how Micro-Learning affects employees and members of Generation Z from various angles.
2. Investigate the elements that affect all sides of the quality of the content of Micro-Learning that Generation Z will contain.

### 3.4 Research Questions:

1. In terms of raising accomplishment, how does microlearning stack up against more conventional teaching methods?
2. What characteristics of content in micro-learning are more likely to engage in microlearning activities for Generation Z?

### 3.5 Literature Review & Table

<b>Author's Name</b>	<b>Date of Publications</b>	<b>Name of the Publications</b>	<b>Result / Outcome</b>
Warren, K.	2022	Generation Z (Gen Z): Definition, Birth Years, and Demographics	From 1997 to 2012 people counted as Gen Z.
Esposito, F.	September 4, 2020	NEVER STOP LEARNING BECAUSE LIFE WILL NEVER STOP TEACHING.	Learning is a continual process, folks need to adapt & be balanced.
McClinton, D.	2021b, October 22	Global attention span is narrowing and trends don't last as long,	Attention span is reduced by 12 to 8 seconds.
Kapp, K. M., & Defelice, R. A	2019	Microlearning: Short and sweet.	Definition of microlearning.
Dn, S. K.	2021	5 Key Benefits Of Microlearning. eLearning Industry	Positive uses of microlearning.

Erin McGee	2023	3 drawbacks of microlearning you need to consider	Negative sides of microlearning.
Kaplan, A. M., & Haenlein	2020	Users of the world, unite! The challenges and opportunities of Social Media. Business Horizons,	Pros & Cons
Allen, E	2018	Microlearning: A guide for instructional designers.	Methods
Clark, R. C., & Mayer, R. E.	2021	E-learning and the science of instruction (3rd ed.)	Methods
Mocker, J.	2019	Microlearning: A practical guide to designing and delivering powerful learning experiences.	Methods
Luck, G., & Luck, M.	2018	Microlearning 2018: The top trends for the next generation of learning. Training Magazine	Trends
Molla, M. A. I., & Cordeiro, M.	2020	Microlearning in global education: A review of the literature. Educational Technology & Society	Methods
Vandewalle, G.	2018	Microlearning: A new approach to learning for the digital age. European Journal of Training and Development	Pros & Cons

Bower, M., & Clark, R. C.	2019	Microlearning: Get big results with small learning experiences.	Side Researchs
Allen, E., & Garvin, D.	2018	Microlearning: A guide to creating engaging and effective learning experiences.	Side Researchs
Wang, S., & Noe, R. A.	2021	The challenges of implementing microlearning in organizations. International Journal of Emerging Technologies in Learning	Pros & Cons

“Learning is a never-ending journey” (Esposito) it is said the office staff also should have some sort of learning in their free time during office hours, and for that microlearning modules of SQUARE Pharmaceuticals PLC. play a certain role at their corporate headquarters and plants. According to them, the content of microlearning is within a minute video shown on the TV screen at different places where staff gather through microlearning, as defined by learning expert Will Thalheimer, is "relatively brief engagements in learning-related activities—typically ranging from a few seconds to 20 minutes (or up to an hour in some cases)—that may provide any combination of content presentation, review, practice, reflection, behavioral prompting, performance support, goal reminding, persuasive messaging, task assignments, social interaction, diagnosis, coaching, management interaction, or other learning activities." Defining microlearning is not easy cause over time many experts have had different views. (Kapp, K. M., & Defelice, R. A. 2019). Here the majority of the employees are more than 25 years old cause according to different job requirements the age limit must be over it to take a niche sample, We can idolize the positive connection between microlearning and Generation Z, Many demographic analysts refer to the current generation of young people as Gen Z. The Pew Research Center defines Generation Z as persons who were born between 1997 and 2012. The eldest members of this generation are now around 25 years old, and many have finished college, are settling down, and are starting families. (Warren (2022) but grabbing attention is really hard when Gen Z appears. Since the year 2000, the average attention span has been reduced by twelve to eight seconds and in this study led by Microsoft Canada, the agenda was how technology has affected the attention span. In addition to using data from Google Books for 100 years, 2013 to 2016 Twitter data, 2010 to 2018 Google Trends, 2010 to 2015 Reddit trends, and 2012 to 2017 Wikipedia attention time, the researchers also examined a number of different media attention modes. According to Dr. Philipp Hövel, an applied mathematics professor at University College Cork in Ireland, the researchers then developed a mathematical model to forecast three factors: the "hotness" of the issue, its advancement through time in the public arena, and the demand for a new topic. The data identified times when certain subjects would suddenly gain significant interest and then lose it almost as fast, with the exception of journals and publications like Wikipedia. Professor Sune Lehmann, who worked on the study, said in a press statement from the Technical University of Denmark: "It seems that the allocated attention time in our collective minds has a certain size but the cultural items competing for that attention have become more

densely packed."According to Philipp Lorenz-Spreen of the Max Planck Institute for Human Development, who also took part in the study, "Content is increasing in volume, which exhausts our attention and our urge for 'newness' causes us to collectively switch between topics more frequently." (McClinton, 2021b) To counter this kind of obstacle microlearning has several positive sides like better engagement with learners, better retention of concepts, and better transfer to job-related concepts, etc. (Dn, 2021) and this could be a reason that microlearning to become a blessing for Gen Z though there are some drawbacks like not suitable for complex learning materials, can be fragmented for longterm learning and takes more time to organize a content etc. (*3 Drawbacks of Microlearning You Need to Consider | the Yarno Blog*, n.d.) but the affirmative use of this learning can reduce gap of learning in different day to day activities for Generation Z face.

### 3.6 Theoretical Framework:

The theory that works here according to me is the learning theory because many of the aspects match with the topic and related research. The overall microlearning service process is defined, and learning theory is explored as the foundation for a tailored microlearning framework for adult learners. The research issues in the current microlearning process will be addressed by a personalized microlearning framework that will be suggested. Under the learning theory, the adult learning theory, microlearning, and personalized learning fall but all are connected if we analysis from some aspects like Personality Experience, Learning Orientation, and Readiness Inspiration to Acquire Knowledge. The theories I mentioned above are written and explained in a paper called "Personalized Microlearning Resources Generation and Delivery: A Framework Design" and the authors are Shin-Yan Chong, Fang-Fang Chua, and Tek-Yong Lim, Multimedia University, Malaysia.

## 3.7 Hypothesis:

1. For employees in Generation Z, micro-learning will be more appealing than traditional learning techniques.
2. Employees from Generation Z will participate in microlearning activities more frequently if they believe it better suits their requirements and interests.

## 3.8 Conceptual Framework

Independent Variable

→ Generation Z employees

Mediator Variable

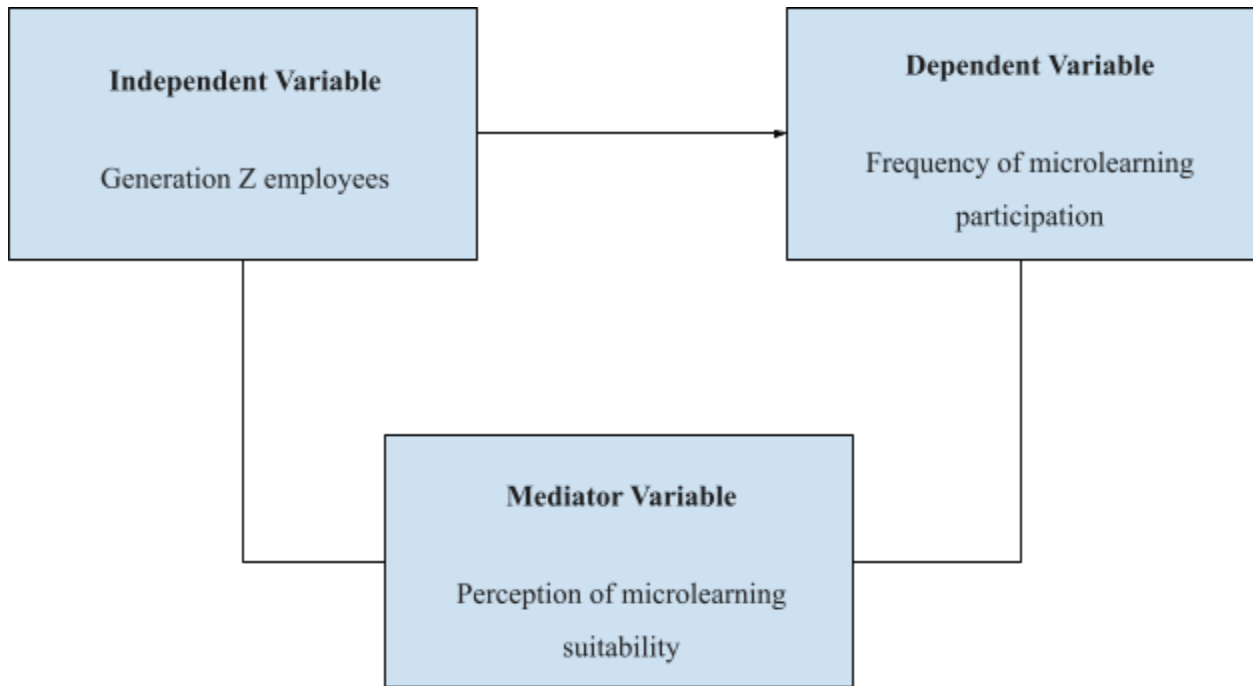
→ Perception of microlearning suitability

Dependent Variable

→ Frequency of microlearning participation



## Flowchart



## Cause-and-Effect Relationship

Employees from Generation Z are more likely to believe that microlearning is appropriate, which will encourage them to engage in microlearning activities more often.

## Explanations

The personnel belonging to Generation Z are distinguished by their acquaintance with technology and their inclination towards brief, succinct, and captivating educational opportunities. This is in line with the features of microlearning, which is characterized by brief informational bursts presented in a range of media, including interactive modules, films, and infographics. Employees from Generation Z are therefore more likely to find microlearning engaging and useful.

Employee participation in microlearning activities is also increased when they feel that the activities are pertinent to their own needs and interests. This is due to the fact that microlearning

enables modification and tailoring to accommodate different learning preferences and styles. Employee participation and time investment are higher when they see a clear connection between the learning material and their personal and professional objectives.

## Implications

The results of this conceptual framework imply that microlearning is an effective strategy for instructing and involving Generation Z workers. Organizations may successfully teach and grow their Generation Z workforce by offering brief, individualized, and engaging learning experiences.

## Additional Considerations

- The particular learning objectives and the environment in which microlearning is implemented might affect how effective it is.
- To provide a holistic learning experience, microlearning should be combined with other learning methodologies.
- Employers ought to provide staff members the chance to offer input on microlearning assignments.

Additional research on the effects of microlearning on learning outcomes and employee engagement may be built upon this conceptual framework.

The cause-and-effect relationship between the three variables is shown graphically in this flowchart. It demonstrates that workers from Generation Z are more likely to think favorably of microlearning and to engage in microlearning activities more often as a result.

## 3.9 Why Micro-Learning for Gen Z?

Daily social, economic, and technical developments spur the development of new ideas and teaching methods. Changes in education are required for us to live, work, and study acceptably. According to recent research, brief material may result in a 20% boost in knowledge retention. To investigate this matter, scientists from Dresden University of Technology in Germany have started research. It is common knowledge that the format of the majority of e-learning resources is a content piece followed by an assessment question. The purpose of the study was to determine if students performed better on these issues after seeing multiple short bits of information and responding to several pertinent questions, as opposed to after viewing vast volumes of content with fewer assessment sections. The students were separated into three groups according to the following, and the e-learning material consisted of sixteen chapters of content: After reading each of the 16 chapters, the first group was asked a question; the second group was asked four questions; and the third group was asked eight questions after reading each half of the original text. After completing the first level, students complete the same multiple-choice test covering the whole course information in the second step. Results showed that participants performed better in each of the two stages and retained information better when given smaller slices of content: the first group answered assessment questions in 28% less time than the third group and did 20% better; the first group scored 8% higher on the comprehensive test than the second group; and students in the third group had to read more than three times as many sections as the first group did in the second stage. Long content presented all at once results in very little interaction between the learner and the information. In this approach, the learning environment may become unpredictable since the material may be more than what the working memory can hold. Knowing what to anticipate when new information is provided is essential for improving retention, which is another aspect of the issue. Therefore, it has been established that microlearning enables students to more readily acquire and retain the knowledge offered by the course's manageable and digestible lessons and exercises. Because the entire educational process is broken down into manageable pieces that often last no more than a few minutes, micro-learning and micro-learning education are frequently referred to as "bite-sized" learning. The focus on the unique learning demands is determined by how micro-learning

addresses the brief amount of learning content that is made up of fine-grained, interrelated, and loosely coupled short learning activities (Singh, 2014).

## 3.10 Positive Outcomes of Micro-Learning for Gen Z

Since learners may jump in and out of the learning materials, absorbing each at their own speed, microlearning content is more effective than conventional courses that require students to click next to proceed. The content seems more relevant to the person and they are not overloaded with too much extraneous or irrelevant information thanks to the more condensed focused and targeted approach, which considerably increases retention levels. According to surveys, if courses were shorter, employees would use their company's learning resources more frequently since they find that lengthy courses disturb their everyday work schedules and make the knowledge much more difficult to understand. Engaging, frequently video-led, and highly visual microlearning material increases the likelihood of keeping learner engagement from beginning to end. (Kennett, 2022)

### 1. Formation of a learning culture:

A continuous learning strategy is made possible by microlearning. Microlearning enables learners to access knowledge at any time and from any location, as opposed to depending on conventional training techniques that mandate staff members attend time-consuming seminars or courses. Distributed teams, who would not otherwise have fast access to high-quality learning materials, are especially well-suited for on-demand staff training. Employees may devote time to studying more regularly — possibly even daily or weekly — thanks to the condensed nature of microlearning courses and modules. (Singh, 2021)

→ **More engagement:** As it is geared toward a particular learning aim and is shorter in time, microlearning initially engages learners better. Because microlearning courses are only 5 to 10 minutes long, learners don't experience the same level of tiredness as they would from larger programs. They breeze through the brief microlearning course, get the idea, and continue. The learners don't feel rushed or bored even when they are shown 5 microlearning modules, which helps them finish the course more quickly. It is always preferable to have shorter, more focused modules that target a particular requirement to achieve an aim than a 30-minute module with three to four goals. (Dn, 2021b)

→ **Boost engagement:** Compared to their coworkers in offices, remote workers often have fewer possibilities for informal learning. They lose out on spontaneous encounters, and water cooler con, which may develop into quite interesting social learning opportunities. Instead, remote workers could take part in formal educational options like conferences or seminars, which might be few and difficult for knowledge retention. Employee development activities may be made to be more successful and efficient by using microlearning, which also increases learner engagement. The brief style is more suited to the short attention span of the modern learner and fits readily into hectic schedules, allowing your team members to engage in learning more regularly. Additionally, employees remember information better with easily consumable microlearning content than with conventional training techniques, which improves learning results. Organizations may measure learning completion rates and other metrics of L&D program efficacy using modern microlearning platforms' analytics and monitoring technologies. (Singh, 2021)

## 2. Remove gaps in skills in daily and transferred job life

Learners are better able to use the concepts in their professions as they get more familiar with them and retain them. Any training program's goal is to assist students in enhancing their performance. When they can recall the ideas more easily, this may occur. Because the idea is immediately linked to an activity that the learner must carry out on the job, a microlearning course aids students in better understanding the subject. Because students may take the microlearning course whenever they want to review a subject, memory loss following training is also decreased. (Dn, 2021b)

→ **Removing gaps remotely:** Since 2015, there has been a 25% shift in the skill sets needed for professions, and by 2027, this percentage is predicted to quadruple. It's hardly shocking that 75% of businesses have trouble finding candidates with the ideal mix of technical and soft abilities. The ability to upgrade and reskill without making a sizable time investment is made possible by microlearning, which may enhance employee motivation. A team member may sneak in a learning session between meetings or while waiting at the doctor's office thanks to microlearning

content, which is generally around 15 minutes long. One of the most in-demand talents for 2023 is communication, which is crucial for hybrid and remote teams that interact online while working asynchronously. (Shail, 2019)

### 3. Needs-based education:

Although it may seem apparent, information is something we need when it is needed, not on the designated day of a classroom-based learning session scheduled for six months from now. Because microlearning information is so hyper-targeted, it is perfect for self-directed learning because it enables people to identify competence gaps in themselves and rapidly and effectively fill them. This might include both hard skills and a wide variety of technological knowledge. (Kennett, 2022)

→ **More personalized methods:** Four out of five students (78%) said they needed course suggestions based on their unique career objectives and skill gaps, according to LinkedIn statistics. As a result, businesses that promote courses on LinkedIn Learning experience a 69% increase in the number of hours each student watches. Microlearning is incredibly adaptable and can be made to fit the needs of any individual employee. Bite-size courses enable your team members to acquire the material that is most pertinent to their job or professional objectives, including any new skills they may require. As well as skipping over training topics they are already familiar with, employees can. Your staff will remain motivated thanks to personalized learning's greater significance and engagement, which will improve learning outcomes. In actuality, advancing toward professional aspirations is what drives employees the most. (Shail, 2019)

→ **Flexible methods:** operate and personal life regularly overlap and merge in the contemporary workplace, where teams may operate entirely remotely, in an office setting, or in some other hybrid configuration. Your team members might only have a few minutes here and there for online training due to personal obligations, meetings, and work-related activities. Employees must be allowed to complete their training on their own time and at their speed. Employees may access on-demand learning materials wherever they are because of microlearning's adaptable approach to employee development. Employees may easily fit learning into their busy schedules by breaking up

the learning content into smaller, more digestible portions, making it a more efficient and effective method to learn. (Shail, 2019)

## 4. Keep pace with trends:

It is crucial to keep current with new trends in the fast-paced work world of today. In comparison to more formal training formats, microlearning's condensed structure makes training materials easier to generate and faster to learn. For instance, when the COVID-19 epidemic hastened the move to remote work, employee training initiatives assisted employees in continuing to be productive from home. In fact, according to 64% of L&D professionals, this was the turning point when learning became a "must have" rather than a "nice to have." As workers evaluate the uses for platforms like ChatGPT, we are currently witnessing the demand for quick learning content generation again. Similar to that, microlearning materials are quickly updated to reflect changes and made available to users, making them an effective tool for keeping staff members informed. (Gross et al., 2019)

- **Interactive Mobile Courses:** A PC, tablet, or smartphone may all be used to execute microlearning. The brief length of the courses, however, makes them perfect for transmission by smartphone. Short microlearning courses featuring a range of interactivities and activities can be developed by organizations wanting to deploy mobile courses as a starting point. When it comes to mobile distribution, several smartphone-specific mini-games or activity templates may be tested out and used. They will also appeal to students. A true/false template variant or a matching template that is exclusive to smartphone deliveries are two examples that come to mind. In addition to the advantages listed above, microlearning offers the special feature of being just-in-time learning. Any company searching for immediate results for its training initiatives can use microlearning as a primary delivery method. (Dn, 2021c)
- **Solve specific problems:** Asynchronous workers may find it difficult to quickly seek answers through digital communication channels, and distributed workers are unable to simply tap a coworker on the shoulder to ask a question. Your team members may swiftly



and autonomously handle issues in their routine jobs thanks to microlearning. Team members may, for instance, view a brief video to learn how to perform a VLOOKUP in Excel or calculate the optimal character count for a social media post. Students can be more productive and feel more in control of their education when they have access to the information they need when they need it. This is especially important for creating a hybrid team that is highly engaged. (Gross et al., 2019)

→ **Faster Learning** According to new LinkedIn research, time is the top obstacle to job learning. Josh Bersin's research for Deloitte revealed that employees generally devote only 1% (or 24 minutes) of their workweek to learning activities. The majority of us would be fortunate to finish one course every week because corporate eLearning modules typically last between 15 and 30 minutes. Because microlearning modules are so much shorter than conventional eLearning courses, learners can finish more than one course each week. (Colman, 2023)

## 5. Improved Return on Investment (ROI)

According to both customers and prospects, three major issues have a negative influence on learner engagement: learners don't have or make enough time for training, there is no one-size-fits-all solution that works for everyone, and eLearning is boring and seems unrelated to a learner's position. These engagement issues can seriously affect ROI, but they can be solved with a strong microlearning plan. Video-based microlearning exhibits greater recall and retention rates when compared to other media types, which improves ROI since the learned skills and knowledge are actively kept and usable in the workplace. The learner's attention is maintained, which leads to greater retention of the material when it is broken down into manageable, anytime-accessible pieces. Microlearning offers several advantages for businesses looking to

transform their learning culture through quick, precise, just-in-time learning that fosters curiosity and raises learner engagement from the top down. (Kennett, 2022b)

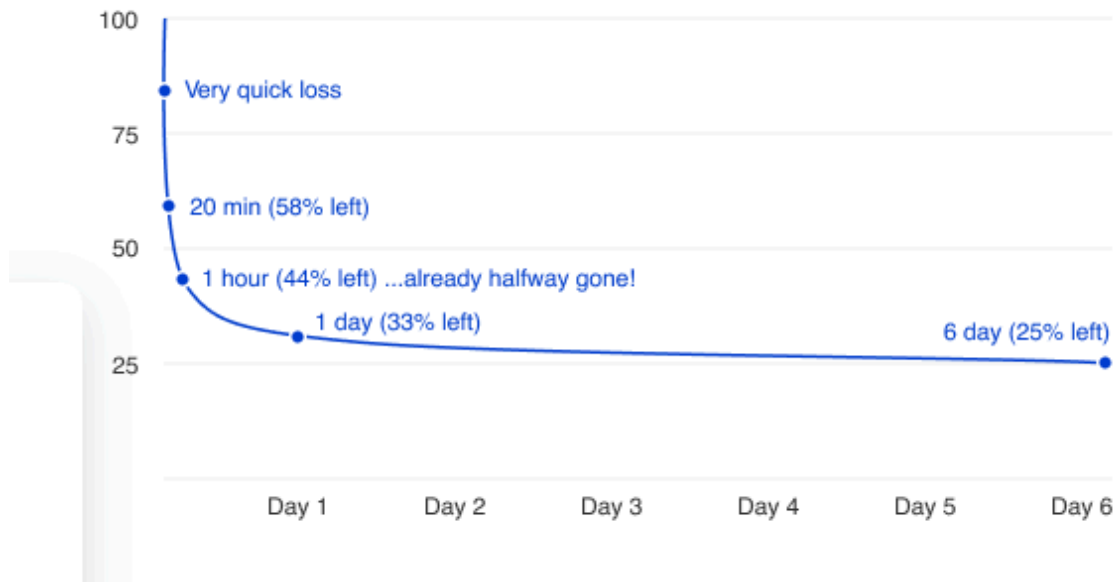
→ **Increase retention rate:** Given how difficult it is to find qualified candidates, many businesses are prioritizing employee retention. Because so many people now work remotely, many of them may no longer be constrained by geography, making it simpler than ever for your staff to pursue new employment options. Work that is difficult and has an effect, internal mobility, and the opportunity to learn new skills are three of the top five motivators for people to seek new employment. The primary motivation for seeking out new possibilities is pay and perks, which are closely related to career advancement. Microlearning can aid in employee retention. People who participate in learning activities at least once a month are more likely to believe that learning helps them grow and improve in their present job and accomplish their professional objectives than disengaged learners. Employees are less inclined to look for other possibilities when you give that.

We must absorb information and think about it afterward to develop new knowledge and abilities. According to research by German psychologist Hermann Ebbinghaus, the average student forgets 50% of what they learned in class in a day and 90% of it in a month. This discovery was known as the Forgetting Curve.

The Forgetting Curve for a single learning experience looks like this.

## Ebbinghaus' Forgetting Curve

(How much of something do we forget each day?)



Ebbinghaus discovered that learning is more effective when it is done as a sequence of repeated actions rather than a single, one-time activity. Repeated exposure strengthens memories and encourages recall. Because it enables you to quickly develop concentrated, memorable training activities and evaluations that reinforce information, microlearning is the perfect remedy for the Forgetting Curve. According to research, microlearning lowers the risk of mental exhaustion by training the brain to concentrate on learning one item fast before pausing to rest. We acquire knowledge by repeating a sequence of spaced learning activities that aid in storing new information in short- and long-term memory. For workplace training, several businesses already employ microlearning and see excellent results. For instance, Walmart was able to significantly increase employee retention and awareness of safety procedures after introducing a microlearning program, as well as achieving a 54% drop in recordable safety occurrences. (Colman, 2023)

## 6. Organization development in a cost-effective way:

Microlearning courses may be used by businesses that are searching for fast wins and want to train their staff on new aspects of their goods or services or want to teach their sales force an intriguing bargaining tactic. Because microlearning courses are easier to create and implement, they meet the demands of the company to swiftly teach their workforce without devoting a lot of time to lengthy and time-consuming training modules. After a few months of implementation, organizations may quickly update any modifications they desire to make to the courses. Organizations must employ the appropriate skills to create these compact modules if they are to succeed. (Dn, 2021d)

- **Cost-reducing method:** Microlearning is frequently more economical than conventional training techniques. A ticket to an industry conference or instructor-led classroom training is significantly more expensive than subscription-based pricing methods. The microlearning format also reduces the expense of employee travel and time away from the office. Shorter, digitally transmitted classes may also be quicker and easier to develop than other formats, resulting in further cost savings for organizations that create their educational content. (Gross et al., 2019)
- **Broad Opportunities:** The top priorities for L&D last year were employee wellbeing, DEI, upskilling and reskilling people, and leadership and management training. The range of information that employees may acquire in a given amount of time is constrained by the fact that traditional learning formats frequently focus on only one learning topic. With the help of microlearning, your team members may increase their knowledge in several different subject areas quickly. In less time than it takes to merely go to an in-person conference, a high-potential employee may enroll in a management course one week and unconscious bias training the next. (Shail, 2019)
- **Learn and Go:** Thanks to modern technology, we may use Game eLearning to access course material anytime and wherever we choose. Because of this, the microlearning technique can be perfect for those who want to make the most of brief learning opportunities throughout the day, even if it's only while we wait for the kettle to boil. We may interact and have fun with distant coworkers using mobile learning apps while

sharing our learning experiences. Browser-based learning not only lets us make the most of the time slots that may be filled with educational possibilities, but it also gives us control over the actual setting in which we study. We don't have to be confined to our desks to learn when material is accessible by workstation, tablet, or phone. (Kennett, 2022c)

## 7. Microlearning is Trackable

The majority of organizational learning is challenging to link to business results. Unactionable statistics like "the average viewer watched 33% of your video" come from one-time learning experiences that are quickly forgotten. Microlearning encourages explicitly validated interactions. The "depressurized" setting of individual text message participation rates, however, results in improved feedback and improvements to subsequent courses. You may tell your students are paying attention when they respond to a multiple-choice question with a short text message or a "read receipt". You can tell exactly what information is being accessed since the content is divided into distinct microtopics. (*Microlearning in 2023: Research, Benefits, Best Practices — Arist — Meet Learners Where They Are — Science-backed Microlearning, Nudges, LMS, and More*, n.d.)

### → Improves Course Completion

According to Hubspot, microlearning boosts online training completion rates and engagement by a factor of four. The desire of students to finish a course has nothing to do with it. Making learning as simple, fluid, efficient, and gratifying as possible is the key. We all lead busy lives, and for many learners and use cases, learning that can be broken down into manageable bits just works better. (*Microlearning in 2023: Research, Benefits, Best Practices — Arist — Meet Learners Where They Are — Science-backed Microlearning, Nudges, LMS, and More*, n.d.)

## 8. Limits Cognitive Overload

By dividing the material into digestible chunks, microlearning also avoids the cognitive overload that results from processing enormous amounts of information.

Cognitive overload is when the sheer amount of new knowledge overwhelms our working memory, making it challenging to absorb and recall it all. We are less likely to learn anything at all when this occurs. Microlearning enables pupils to learn more efficiently and complete their learning objectives with a minimum of mental fatigue since it does not overtax the working memory of the brain and is concentrated on a particular activity or problem. (Schmidt, 2023)

## 9. More Affordable

For an employer, the expenditures of a microlearning course are frequently manageable. These modules are typically created quickly because of their brief length and potent nature. It's also not always required to work with expert content developers, depending on the format. In-house creation of content and rich media, such as instructional movies, welcome greetings, or policy papers, may significantly save development costs. Additionally, investing in classroom supplies and other microlearning tools is no longer necessary for businesses thanks to online education. This enables the business to spend more on traditional learning methods and employee skill development. (Shail, 2019)

## 10. Easily Updated

By splitting up large topics into microlearning modules, only the part that is no longer up to date can be revised to add one learning objective. It is much easier to adjust one video than to change a compressed training program, especially after a few months of deployment. Additionally, online training and mobile learning help employees go back to previous topics to enrich their learning process, refresh their memory, and improve learner retention. This is one reason why many training managers prefer microlearning over traditional e-learning and other traditional forms of learning. (Gross et al., 2019)

## 11. Fast Impact

Employees often comprehend a topic more quickly because of the brief modules, restricted quantity of information, and frequently practical approach to microlearning. The bar for starting with a new topic is also lowered by the fact that learning can be discontinued after a module has been finished. As a result, students usually pick up new material quickly. (Gross et al., 2019)

## 12. Increased Freedom

Employees may study casually at their leisure since microlearning modules are small pieces of information that are accessible in the cloud and even visible in offline mode on mobile. Anytime and from any location they want. The business can also provide online training at any time, or place using microlearning. With over 6 billion mobile users globally, mobile learning and online learning are more crucial than ever. (Gross et al., 2019)

## 3.11 Why Micro-Learning is not for all?

After researching the advantages of this cutting-edge methodology, microlearning appears to be the finest thing in the world of learning and development. As opposed to what most people think, it's not all rainbows.

Microlearning has several drawbacks of its own. Let's examine them right now!

### 1. Might Not Fit

Some training packages might not be suitable for microlearning. Its main objective is to deliver difficult information in digestible portions. The development of comprehensive courses, like compliance training, cannot be broken down to the micro level, though. Because learners only receive partial knowledge in some positions, microlearning may be more detrimental than beneficial. To provide just-in-time solutions and refresher training, eLearning providers can add microlearning as a layer to the training program.

Corporate microlearning is designed for subjects and exercises in online training that are simple to understand. As a result, it may not be appropriate for more in-depth courses, such as compliance issues or challenging online certification programs. Nevertheless, you may still employ corporate microlearning materials as an addition to these online training programs. Make "just in time" microlearning items, for instance, to reaffirm the important points and enhance understanding. (Pappas, 2021)

Brief modules and online training exercises are frequently not the ideal option for harder jobs, abilities, or procedures. Remember that the "micro" in online microlearning activities refers to how quickly they may be completed. As a result, they are not best suited for more complex subjects that include several linked subtopics, ideas, or concepts. However, you may add supplementary microlearning exercises to your lengthy online training courses to assist them. An



employee may see an online presentation or eLearning video that tackles another aspect of the subject, for instance. (Lms, 2022)

The fundamental objective of micro is that it's fast and great for small topics that need to be taught effectively. Some subjects need a deeper examination. Microlearning, for instance, might not be the best option if your staff members need to achieve a certain certification. This may necessitate acquiring knowledge and abilities in a wide variety of areas. But that doesn't imply microlearning is completely out of date; consider using it to emphasize a subject's main points. (Robcondon, 2022)

## 2. Unorganized

The disorder of microlearning is one of its possible disadvantages. The majority of microlearning technologies work similarly to jigsaw pieces, fitting together to create a bigger image. But if students are careless, they could miss out on certain details and miss the broader picture. They don't get the best learning results in this approach. Employees who gain certain abilities but lose out on others due to the chaos in microlearning may pay a price. However, you may get around this issue by monitoring the training materials and the development of the students.

It's crucial to keep in mind that online training for microlearning should be thorough. They shouldn't just focus on one facet of the notion or idea because it may make them appear broken and disconnected. Your online training program should ideally include connections between each module or activity while still giving your staff the knowledge they require. Creating microlearning modules with many parts or "chapters" with a cliffhanger or prompt asking your corporate learners to click through to finish the online training course is not a good idea, for instance. Each online training unit for a piece of microlearning information must exist separately. (Robcondon, 2022)

Online training materials that are digestible can be compared to jigsaw pieces. They provide your staff with a little bit of information, but they might not convey the whole story. As a result, it's not difficult to create online training experiences that are fragmented or chaotic and appear unconnected. By developing corporate microlearning modules that serve their learning

objectives, you may avoid this typical blunder. A quick online training session, for instance, needs to go over each step in detail and cover the necessary skill sets. Employees should have a clear knowledge of what's involved and how to use the information; it doesn't have to go into every detail or activity. (Pappas, 2021)

It is simple for knowledge to become fragmented since microlearning concentrates on compressing material. Consider making a brief film outlining the workplace code of behavior. It would be difficult to fit all the necessary information within a 3–10 minute time limit. In that instance, employee learning will be hindered if you omit certain crucial information. Being certain of the learning objectives for the microlesson topic before you begin creating material is one approach to avoid falling into this trap. (Lms, 2022)

### **3. Does not capitalize on preexisting knowledge**

Condensed content has the problem of making it harder to apply prior knowledge. Because repetition and reflection are crucial components of effective learning, this might have a detrimental influence on your staff. Real-world examples should be cleverly incorporated into your bite-sized content to help learners recall prior understanding. Storytelling is an excellent tool for this since it allows you to proceed through a "plot" toward a knowledge objective while making references to the past tense (prior information). (Lms, 2022)

Assimilation and reflection are two essential phases of learning. Corporate learners must be able to link new concepts to prior knowledge for this to happen. Employees are unable to add to their existing knowledge base or make sense of the relationship if corporate microlearning online training materials appear to be unconnected. Fortunately, by including practical applications and information refreshers, you may speed up absorption. For instance, using a micro-learning simulation as a knowledge refresher that asks staff to apply knowledge and abilities they currently possess. (Robcondon, 2022)

## 4. Long-Term Goals

Each module of microlearning focuses on a single learning objective. Long-term learning effects, however, are incredibly intricate and complicated. Microlearning is not intended to achieve sophisticated and in-depth long-term learning goals; rather, it is intended to fulfill just-in-time learning requirements.

Long-term objectives have several facets since they need a range of actions, abilities, and activities. They thus don't work well for business microlearning. To make the milestones more doable, you may still employ online training materials that are designed for bite-sized microlearning. Providing employees with online training videos for microlearning, for instance, may help them develop their skill sets or concentrate on a particular certification topic. (Robcondon, 2022)

Microlearning can be a component of a more comprehensive online training plan, but it shouldn't serve as your main online training technique. This is because it frequently prevents the accomplishment of long-term goals. Employees may find it helpful to amass all of the particular knowledge or abilities they require to finally accomplish their goals, much like assembling a jigsaw, but a single online training session cannot accomplish this independently of the others. Because of this, it works better for "moment of need" online training and other more focused learning goals, such as completing a straightforward skill or absorbing crucial knowledge. (Pappas, 2021)

## 5. It's time-consuming for creators

Don't underestimate the time it will take to succeed, even if developing microlearning can take 300% less time than standard e-learning. It may seem simple to make a quick movie or game to teach a topic, but there is a lot of labor involved in producing a polished final result. It can be alluring to organize the information in the style of a conventional e-learning course. Continue creating a microlesson, but be selective about which subjects are most suited for it. Microlessons take a lot of time since there is so much information to sort through to get the most pertinent information. (Lms, 2022)

## 6. One Goal One Module

While studying for a short while is alluring, it's challenging to master a skill in less than 10 minutes. With traditional classroom education, employees may finish a whole course in only one day. With microlearning tools, it could be more difficult to learn the same amount in a single day because each module only has one learning objective. Stick to a bigger training plan and employ a variety of ways if your learners want a complete and thorough comprehension of the topic you have selected.

## 3.12 How Micro-Learning Content Can Be Created? & Areas I was concerned about while working on Micro-Learning at SQUARE Pharma.

### 1. Engage in different learning styles

Some individuals learn better by hearing things, while others learn best by reading or seeing things. Microcourses are an excellent option because of this. They may effortlessly include multimedia (such as films, photos, and infographics) and be presented as digital learning. (Hurix, 2023)

In SQUARE Pharma, while I made micro-learning content, also I had to make sure to include new designs to attract audiences in different styles.

### 2. Choose a responsive authoring tool

Mobile responsiveness, or the capacity of your training content to "respond" or graphically reformat itself to any screen size or width, is the way of the future for those who are always on the go. You're sure to cause problems if you restrict your audience to desktop computers. And as you are aware, the essence of microlearning is ease. (Hurix, 2023)

The tool in SQUARE Pharma for creating these micro-learning contents was Microsoft PowerPoint. They use it not only for cost-effectiveness but also because it is easy to create for all interns from all backgrounds in technical knowledge at the HR Department.

### **3. Provide additional resources**

Microlearning, as was previously noted, is distinct from formal education in that it focuses learning on the "need-to-knows." But what if students have queries that go beyond what has been covered? In these situations, it helps to foresee possible queries and offer "further readings." These external connections and sources are simple to include, and your course will seem more thorough and full as a result. (Hurix, 2023)

Here in SQUARE Pharma, we add the reference to make the points in front of the audience stronger to accept.

### **4. Incorporate storytelling, where possible**

It's no secret that experiences are the best way for individuals to learn. These can occasionally be imagined and given life via narrative. Stories are not only immersive, emotive, and engaging, but this higher degree of involvement also improves information retention in students. Another fundamental principle of microlearning that we've touched on, simplicity, is supported by storytelling. (Hurix, 2023)

## **5. Know your learners**

The initial step in creating microlearning content should be to precisely define and comprehend your audience. Ask yourself pertinent questions to help you decide how you should approach course production, such as which of your coworkers or team members will find your learning content valuable. For example, what do your learners already know or not know about the topic? Exactly how tech adept are they? Will they be seeking mobile learning (using a mobile device, for example)? By responding to these inquiries, you can make sure that the microlearning material you provide is targeted to the needs of your learners. (Arshavskiy, 2021)

The learners of SQUARE Pharma, are from blue collar to white collar employees, so we need to make content in a way that all people from all backgrounds in society accepts, learn, and implement in their day-to-day life.

## **6. Set a single learning outcome**

Before beginning to construct your e-learning material, it's critical to decide what your desired learning aim is. The construction of microlearning material differs in that your learning purpose should be distinct and solitary. Knowing precisely what new abilities or information you want your students to possess after taking your course not only makes the production process easier for you but also guarantees that you don't include any extraneous material. (Arshavskiy, 2021)

## **7. Keep your content brief**

Microlearning is by its very nature brief. But how brief ought it to be? Effective microlearning information, according to research, lasts between two and seven minutes. But even if the learning material is only a few minutes long, learners aren't assured to finish it because attention spans are getting shorter. In light of this, it is still important to consider how your learners will skim the text and establish distinct takeaways when developing microlearning content. This is especially helpful if you utilize microlearning to teach staff soft skills since when they finish the course, the employees may immediately put what they learned to use. (Arshavskiy, 2021)

In SQUARE Pharma, they obey the rule that every content has to be within a one-minute time limit but if necessary then it could be for two minutes, not more than that.

## **8. Include relatable examples**

Learners gain from having examples they can relate to and draw inferences from when digging into a new subject. If you want to make sure the examples you use are understandable, think about real-world situations that learners could run across at work. This not only enables children to apply what they have learned to their situations, but it may also help them retain what they have learned. (Arshavskiy, 2021) Similar to narrative, giving examples helps students to get fully immersed in a learning experience. Examples, on the other hand, elevate storytelling by presenting situations in which the teaching is immediately applicable. As a result, your students will be able to draw a direct connection between what they are learning and the situations in which they may apply it. (Hurix, 2023)



In SQUARE Pharma, we also use examples with pictures because it helps to grab the knowledge from any side of the room, where the content is showing.

## **9. Apply an active and relatable tone**

Additionally, relatability may be increased by using a conversational tone that conveys information the same way students do in regular conversation. When creating microlearning material, adopting an active voice ensures that your message is communicated clearly, enabling your audience to draw inferences and fill in knowledge gaps more rapidly. (Arshavskiy, 2021)

In SQUARE Pharma, it is more like a one-to-one conversation in an affirmative way. Which motivates the audience to accept the facts quickly.

## **10. Keep it engaging**

To ensure that students stay engaged, information must be both brief and precise. Think of contrasting text with interesting graphics or interactive components. You might also present your stuff on its whole in an interesting way. Videos, for instance, offer a visual and auditory learning experience that can help increase student retention rates. (Arshavskiy, 2021)

### 3.13 The Relation of MicroLearning, Mobile Learning, and Ubiquitous Learning

Due to their inherent restrictions, mobile phones are ideal for transmitting micro-learning information. For instance, 140-character Short Message System (SMS) messages may be used to convey learning content and collect answers from students. Particularly for students in the Third World, as in Africa, where mobile phone networks are more reliable and accessible for internet connectivity than wired cable networks, this seemed to be extremely practical (Traxler, 2012). Even basic, low-cost mobile phones did provide this contact through SMS, and mobile learning (m-Learning) research started to look at the creation of strategies that could function with such constrained data interchange and communication. A new level of mobile contact became feasible with the introduction of smartphones, particularly with the release of the iPhone in 2007. The new smartphones were more powerful in terms of multimedia (fast processor, high-resolution screens), interaction (touch screen, speech, camera, multi-sensing), and connectivity (4G and beyond), going beyond the 140 character limit of SMS and Wireless Access Protocol (WAP), which had been developed for classic mobile phones with their limited technical capabilities. This did open up entirely new ways to connect with mobile devices and seemed to extend desktop features to the mobile space. Mobile learning on these cell phones needed freshly built learning systems and paradigms expressly for utilizing these technological capabilities, yet these new capabilities also presented new and distinct obstacles. More advanced than "traditional" mobile learning, location-based apps, social networking, and user-generated material in particular offered new potential that needed to be incorporated into learning paradigms. Laru and Järvelä (2013) hypothesized that the era of mobile learning (m-learning) is already over because it represented the start and the peak of the hype cycle of learning with mobile technology (around 2008). This is according to Gartner's hype cycle for the educational use of mobile technology ("technology trigger, the peak of inflated expectations, a trough of disillusionment, the slope of enlightenment, plateau of productivity"). They claim that the era of ubiquitous learning, or u-learning, has just recently started. This u-Learning not only considers the portability and mobility of mobile phones but also the availability of learning materials everywhere (where a network exists) and on a variety of devices, as well as the fact that users can interact with this material without difficulty, with mobile devices and computers "embedded in the background of

daily life" (Laru and Järvelä, 2013). This implies that instructional materials must be created such that they may be displayed as effectively as possible on the user's device.

However, Google Trends data refutes the claim that the term Ubiquitous Learning has replaced Mobile Learning in the field of learning research worldwide: the search statistics for "ubiquitous learning" (normalized to the peak interest) show a steady decline after its brief peak in 2007, whereas the trend for "mobile learning" appears to be at least stable since 2011. This indicates that, even though the real meaning of research in m-Learning has evolved to more complicated concerns made possible by the technical capabilities of mobile devices, this new word has not (yet) received unanimous acceptance by the community.

## 3.14 Methodology

This part of the report represents the methodology of the study on the positive outcomes of micro-learning for Generation Z. Here, I have done Inductive narrative analysis on a single case study, and about that Creswell et al. (2007) state that narrative research examines people's life experiences throughout time. One kind of study that involves gathering people's lived experiences and then commenting on them is called narrative research. (*Evaluation*, n.d.) As I was an intern at SQUARE Pharmaceuticals and there was no option for surveying them but by taking special consideration, I took a detailed interview session with several colleagues of the office as it can be considered as a part of the primary research, and part of that I will use secondary research method to establish my points here from articles, journals, websites and the annual report of SQUARE Pharma itself.

Using in-depth interviews and ontological and methodological philosophical perspectives through "thematic analysis" in the literature section and "multiple case studies analysis," this study adhered to a qualitative methodology. According to Yin (2009), three case studies are sufficient to evaluate and comprehend the cases' essential elements. The NVIVO Mac program was utilized to identify and evaluate themes after the contents of nearly forty publications were reviewed. Stake stated in 1995 that conventional procedures were used to acquire data from a variety of sources.[29][33].

The term "qualitative research" refers to a large family of research approaches, each of which is distinct from conventional quantitative research. The goal of qualitative research is to identify significant patterns that are descriptive of a certain event through examining and interpreting text, interviews, and observations. (*ISTSS - Trauma Research Methods*, n.d.-b). For the report, I did an interview session as a part of qualitative research by obtaining approval from SQUARE Pharma, the sample for the interview was determined by the availability of executives and some higher ranked officers as during lunch time many of them did not want to sit for scheduled interviews. Though they are the beneficial micro-learning concept in SQUARE Pharma, whom I interviewed we cannot be guaranteed that all reflections of sample must be accurate. After the

interview, I will do an inductive narrative analysis to draw a great pattern among them and my motive for the report.

Besides, to solidify my report I will go through secondary research. Secondary research is the act of compiling and evaluating material that has already been gathered and used by someone else for a different purpose. It entails utilizing already published materials including books, papers, reports, surveys, and databases to gain understanding and information about a certain subject or research issue. (Taylor, n.d.)

### **3.15 Data Collection Procedure:**

The questions, that I asked on the scheduled interview were authorized by my university and office supervisors and they were,

1. According to the perspective of the audience, how could the microlearning content be? / describe it.
2. Who is the audience here and how do you define it?
3. How a microlearning module can be strengthened and weakened by your perspective?
4. Are there any accomplishments of providing microlearning content over all the headquarters and plants according to you?
5. What parameters do you suggest to put in the contents of microlearning?
6. Which is the ideal time to educate anyone in the office regarding any topic via microlearning and why?
7. What tools are used in microlearning and what do you suggest that we must use? Who works behind it?
8. Do you think the microlearning concept should be introduced apart from the workplace in other fields like educational institutes or public places?

# Demography Table

This table will give a glimpse of an idea about the demography of the employees who were interviewed by me during the internship program.

Category	Sub-Category	Count	Participants
Gender	Male	5	Mozammel Haque Nurul Islam Masudul Alam Anisul Alam Abdur Rahman
	Female	1	
Age Ratio (Estimated)	35-45	5	Mozammel Haque Nurul Islam Anisul Alam Lora Saha Abdur Rahman
	45-55	1	
Position in Company	Executive	2	Lora Saha Abdur Rahman
	Senior Executive	2	
	Senior Manager	1	Mozammel Haque Anisul Alam
	Manager	1	Nurul Islam Masudul Alam

### 3.16 Data Analysis:

Microlearning is a helpful method for staff training and public education. It's a short, focused, and engaging way to learn about a variety of topics, from wellness and health to professional skills. Workers at SQUARE Pharma have suggested that it would be better to play micro-learning content in departments rather than only in their own time. After that, workers could study at their own pace and on their own time. Microlearning content is created with Microsoft PowerPoint; nevertheless, conducting research and creating interesting tasks may prove to be challenging. The author uses brief paragraphs, a few words, and graphics to add attention to the content. This tactic is advantageous to both the audience and the pupils. One of the executives of SQUARE Pharma suggests that the government employ micro-learning in public areas to increase public awareness. Another method that schools may use to educate their students on moral behavior is microlearning. Microlearning offers a lot of potential as a tool for staff training and public education in general. The material should be both legible and engaging to maximize its impact.

#### **Sampling Method:**

A non-probability sampling strategy when the samples contain uncommon qualities is called snowball sampling or chain-referral sampling. This sampling method involves asking current participants for recommendations on how to find the necessary sample populations for studies. (Bhat, 2023)

I have taken interviews with those employees from the HR department, who were available, and willing to share their thoughts.

### 3.17 Why SQUARE Pharmaceuticals PLC. HR department for the interview?

I should select SQUARE Pharmaceuticals PLC's HR division for my internship program and conduct an interview with them to find out what they think about micro-learning for the following reasons:

- One of Bangladesh's top pharmaceutical companies is SQUARE Pharmaceuticals PLC. It is a respectable, well-established business with a solid reputation for its brand. This implies that I will get the chance to work on difficult projects with a significant effect and learn from seasoned professionals.
- At SQUARE Pharmaceuticals PLC, the HR division is in charge of several different tasks, such as performance management, training and development, talent acquisition, and onboarding. This provides me with the chance to broaden my skill set and become exposed to other facets of HR.
- SQUARE Pharmaceuticals PLC is dedicated to giving its staff members the chance to grow and learn. The organization provides a range of training programs, including micro-learning programs, through its dedicated Learning and Organizational Development staff. This implies that I will get the chance to examine how micro-learning is applied in a real-world situation and learn about it from seasoned experts.
- I will get a great opportunity to find out how SQUARE Pharmaceuticals PLC uses micro-learning to teach and develop its staff by conducting an interview with the HR department to get their perspective on the practice. Additionally, I'll be able to hear their opinions on the advantages and difficulties of microlearning. I can use this knowledge to further my career.



### 3.18 An Analysis of Interview Taken by Intern among SQUARE Pharmaceuticals HR Employees to Review Micro-Learning from Different Aspects with Gen Z.

A fresh and creative kind of training that is becoming more and more common in the workplace is micro-learning. It's a type of training that's usually given in 15 minutes or less, using brief, focused spurts. Microlearning is frequently made available via digital platforms like e-learning courses or mobile devices. One of the top pharmaceutical firms in Bangladesh is SQUARE Pharmaceuticals PLC. Additionally, it was among the first businesses in the nation to use microlearning. The HR division of SQUARE Pharmaceuticals PLC interviewed staff members in 2023 to find out more about their opinions on micro-learning and its significance for the company.

According to the interview, SQUARE Pharmaceuticals PLC staff members have a highly favorable opinion of microlearning. They think it's a good approach to pick up new abilities and information. They like microlearning's flexibility as well since it lets them study whenever and wherever they choose. The personnel at SQUARE Pharmaceuticals PLC also noted several advantages that micro-learning offered the company. They think that employee performance, productivity, and engagement can all be enhanced via microlearning. Additionally, they think that microlearning might assist in bringing down the price of training and development.

#### Inductive narrative analysis

A research technique called inductive narrative analysis is used to find and comprehend the themes and patterns that show up in stories and narratives. It is a helpful technique for interview analysis because it gives the researcher a better understanding of the experiences and viewpoints of the interviewee.

Several important themes emerged from an inductive narrative analysis of the SQUARE Pharmaceuticals PLC employee interview. The significance of microlearning for staff

engagement was one of the themes. The staff members stated that micro-learning keeps them motivated for their work and is an enjoyable and interesting method to learn.

The effect of microlearning on worker performance and productivity was a different subject. The staff members claimed that micro-learning had made it easier and faster for them to pick up new information and abilities. Their performance and productivity at work have increased as a result.

SQUARE Pharmaceuticals PLC staff members also mentioned that micro-learning has assisted in bringing down the price of training and development. This is due to the fact that microlearning is a reasonably priced method of providing instruction. Being able to let staff members study at their own speed and on their own schedule makes it a very effective approach to conducting training. The SQUARE Pharmaceuticals PLC workers' interviews indicated that micro-learning is a highly regarded and useful training technique inside the company. The workers think that performance, productivity, and employee engagement all benefit from microlearning. Additionally, they think that microlearning might assist in bringing down the price of training and development.

Overall, the inductive narrative analysis of the interview showed that SQUARE Pharmaceuticals PLC's HR department may benefit greatly from micro-learning. It's a training tool that helps raise employee performance, knowledge, and skill levels inside the company.

# Analysis of the Interview

Microlearning is a useful technique for public education and staff training. It is a quick, concentrated, and interesting approach to learning about a range of subjects, from professional skills to health and wellbeing. Employees at SQUARE Pharma have proposed that playing micro-learning content in departments would be more advantageous than only playing it during their leisure time. Employees might then study on their own schedule and at their own speed. Microsoft PowerPoint is used to produce micro-learning content, however, it might be difficult to do research and design engaging exercises. The creator employs short length, few words, and images to make the material more interesting. The audience and students benefit from this strategy. To raise public awareness, one of SQUARE Pharma's executives proposes that the government use micro-learning in public spaces. Microlearning is another tool that schools may utilize to teach moral conduct to their pupils. In general, micro-learning has great potential as a tool for public education and staff training. To optimize its impact, the text ought to be both readable and interesting.

## Findings:

As, I have said earlier the interview was scheduled and structured, and the employees were so busy that within a short time period, I had to grab ideas from them. The themes I could find out for inductive analysis are importance, preference, and implementation. Below, the findings are given in points,

1. The homogenous matters like health, household, professional life, and small technical skill-based learnings are benefiting every member of the company and this is a quite an important matter for development or you can say the change in the environment.
2. One of the executives confessed that he learned the way of writing the subject of email in an attractive way in the same manner means through micro-learning contents many workers learned ergonomics, the scientific approach to holding things at factories.
3. In the office, the micro-learning content is played in their free time but some employees suggested during the interview that the videos can be played in the department as well because, in their free time some employees can enjoy that time rather than learning and that is a matter of concern. So, the company has resources and they can do it as well.

4. The micro-learning project of SQUARE Pharma is a voluntary activity and that is why the procedure of making it must be easy and this is the reason that they use Microsoft PowerPoint to create content but the maker faces difficulties in research and making them more attractive activities.
5. To make the content more attractive and easily easy to learn, they use visuals as well as fewer words with short duration, which are positive and will directly create an optimistic impact on audiences and learners.
6. One of the executives expresses that the Micro-Learning concept must be introduced by the government in public places to increase public awareness and the schools can also take this to educate them on some moral behaviors as people and children grab ideas quickly by viewing and listening to both as the advertisement companies do via billboards at roads.

## Discussion and recommendation

Feedback are needed to improve activities but here I observed many things from the interview and from those observations, many things can be implemented.

- From the interview, I have noticed that the HR personnel must notice that, the contents of micro-learning are viewed by different employees from blue color to white color and those come from different places of society, so the contents of micro-learnings must not hurt or make them uncomfortable that will ultimately affect on the quality of learning and output as well as.
- During the interview session, one of the employees expressed that, the content can be in a verbally communicative way or in a storytelling method instead of just playing music that can help the audience, and HR personnel can look into this matter as well.
- One of the employees suggested that in a department the contents can be shown via screens as during the free time or lunch period some employees might enjoy their free time instead of learning.

### 3.19 Inductive Narrative Analysis Table

#### Optimistic Connection of Micro-Learning & Gen Z

Theme	Reasons	Connections	Age Ratio (Estimated)
Importance	<ol style="list-style-type: none"> <li>1. Learned various things.</li> <li>2. Felt productive</li> <li>3. A creative way to learn</li> </ol>	<p>The employees felt that they learned, and felt productive via micro-learning because this was the reflection of the interview. Also, the HR personnel believe that this is a creative way to learn them and educate others as this process provides them the happiness of impacting on something new and positive.</p>	30-45
Preference	<ol style="list-style-type: none"> <li>1. Had perceptions</li> <li>2. Feedback given</li> <li>3. Referred topics</li> </ol>	<p>Employees whom I interviewed many of them had different viewpoints and all were positive, which is a</p>	30-50

		<p>reflection of liking the micro-learning concept in the office. They also suggested some topics, on which we can create future content which means still there is a gap that we can fill.</p>	
<p>Implementations</p>	<p>1. Colleges, Universities and the Government can provide different short lessons</p>	<p>Some of the employees, whom I interviewed voluntarily said that the micro-learning concept must be out of the office and can be implemented in different public places to educate others.</p>	<p>30-45</p>

## 3.20 Conclusion

Microlearning has a lengthy history that began with B.F. Skinner's concept of programmed education in the early 1900s. But it wasn't until the 2000s that the name "micro-learning" was developed and the idea started to become widely accepted. Many things, including the expanding accessibility of technology, the increasing demand for corporate training, and the shorter attention spans of contemporary learners, can be blamed for the growth of microlearning. Because it can be provided in brief, focused spurts that are simple to fit into hectic schedules, microlearning is especially well-suited for giving training in the workplace. Utilizing cutting-edge technology to improve the effectiveness of microlearning experiences, such as VR and AI, has become more popular in recent years. We may anticipate that microlearning will play an increasingly bigger role in education and training in the future as these technologies continue to advance. Global learning is a good fit for the effective and adaptable learning technique known as microlearning. It is a terrific approach to delivering education and training to students all around the world since it is efficient, adaptive, and accessible. Microlearning modules may be adapted for a wide range of language and cultural contexts, and they can be made available through several different platforms, including mobile ones. This makes them available to students with a range of literacy, technical competency, and access levels. Microlearning may be offered in a range of languages and time zones, making it a good choice for global learning. This makes it possible for students to access instructional resources at any time and from any location on the planet. Around the world, microlearning is employed in several educational and training environments, including, educating staff members on new software or practices, offering worldwide online courses to students to teach them new concepts or skills providing medical professionals in underdeveloped nations with continued education, enlightening customers about novel goods or services that are being sold on foreign markets. Different organizations from across the world have developed microlearning programs in a variety of methods. Several typical tactics include: Making internal microlearning programs requires the institution's instructional designers and developers to produce and distribute the microlearning materials. But it may also

be expensive and time-consuming. The institution has complete control over the development and dissemination of its microlearning programs thanks to this technique. Working together with subject matter experts (SMEs), SMEs are people with specialized expertise who can develop microlearning programs based on their knowledge and experience. SMEs are capable of creating assessments, activities, and material. Collaboration with other vendors, A range of external businesses offer platforms and material for microlearning. In terms of time and money, collaborating with an outside vendor can be a more effective approach to developing and implementing microlearning programs. However, it's crucial to make a cautious selection of a vendor that can deliver top-notch material on a system that meets the requirements of the institution. Using open-source tools, There are several free and open-source resources for microlearning, such as tools for developing and sharing microlearning content and learning management systems that enable it. Open-source resources may be used to design and distribute microlearning programs at a very low cost. To use and use open-source resources effectively, nevertheless, it is crucial to have the requisite knowledge. Partnerships, To develop and implement microlearning programs, some institutions collaborate with other institutions or organizations. By using this strategy, institutions may be able to pool their resources and knowledge and appeal to a larger audience. Using open educational resources (OERs): OERs are publically accessible educational materials. Finding high-quality OERs that are in line with the unique requirements of the institution and its students can be challenging, despite the potential cost-effectiveness of this method. Here are some instances of how many organizations throughout the world have developed microlearning programs, A variety of internal microlearning programs have been developed by the University of California, Berkeley, including the "Berkeley Bites" series of short movies that cover topics including academic writing and personal finance. To provide a variety of microlearning courses on subjects like data science and cloud computing, Microsoft has teamed with the outside vendor Coursera. A sizable collection of free micro-learning courses on disciplines like arithmetic, physics, and history are available via the nonprofit Khan Academy. Google creates microlearning programs for its staff using a range of strategies, including enlisting the help of internal experts and collaborating with outside suppliers. To develop micro-learning programs for its workers and clients, IBM leverages internal knowledge with alliances with external businesses. Several micro-courses on subjects including health, engineering, and the arts are now available thanks to a collaboration between



the University of Pennsylvania and the online learning platform Coursera. Numerous microlearning courses on subjects like public health and disease prevention have been developed by the World Health Organization. A common method of instructional design is microlearning, which presents learning material in brief, concentrated spurts. While it offers numerous benefits, such as ease and efficiency, it also has some serious drawbacks. The difficulty of covering complicated topics in a short amount of time is one drawback of microlearning. This is because microlearning courses are sometimes only a few minutes or seconds long. Students might not have enough time to completely comprehend and internalize difficult subjects as a result. It can be challenging to keep learners' attention for brief times of learning, which is another drawback of microlearning. This is due to the possibility that when pupils are pressured to learn something new rapidly, they may become more easily distracted or bored. The depth of learning may be limited by the frequent briefness and restricted focus of microlearning courses. A microlearning module on writing a resume, for instance, could be able to teach the learner the fundamental stages of the procedure, but it might not be able to provide the student with the in-depth information and skills needed to generate a resume that stands out from the competitors. A lot of times, micro-learning modules are delivered in a vacuum, with no explanation of how the information fits into a bigger context. For instance, a microlearning module on the Pythagorean theorem may instruct the student on how to determine the length of a hypotenuse, but it might not go into the theory's relevance or practical applications. Microlearning modules are frequently self-paced and asynchronous, students are unable to communicate with teachers or their peers. Due to this, it may be challenging for pupils to maintain their motivation and engagement when learning difficult subjects. Despite the fact that microlearning is becoming more and more common in companies of all sizes because of its numerous advantages, there are several reasons why some firms might be hesitant to use it. One explanation is the fact that microlearning is frequently viewed as a trend or a short-term solution to training issues. Some companies think that microlearning can't provide workers with the depth of comprehension and expertise required for complicated tasks or abilities. Additionally, some companies think that microlearning is too disjointed and fragmented and does not provide a thorough learning environment. The lack of resources or administrative expertise to design and manage successful microlearning programs is another reason why some businesses decide against using them. Microlearning creation may be time- and money-consuming, and it requires careful planning and design to be effective. Finally,

some companies may be just ignorant of the advantages of microlearning. In these situations, learning and development specialists must inform managers and staff of the advantages of microlearning and how it may support their goals. While there are a few reasons why organizations might be hesitant to use microlearning, it's crucial to remember that it can be a successful approach to teaching staff members about a range of jobs and abilities. To guarantee that microlearning is in line with the organization's overall training goals and objectives, it must be properly and strategically integrated.

Additionally, the inductive narrative analysis of the interview shows that micro-learning provides a quick, targeted learning opportunity that is advantageous to all staff members. Any subject, including health, domestic duties, the working world, and minor technical abilities, can be taught using it. Microlearning is particularly useful for bridging skill gaps and offering individualized, adaptable instruction. At SQUARE Pharma, during employee free time, micro-learning materials are played. This would foster a culture of learning throughout the organization and enable workers to learn as they work. SQUARE Pharma employs fewer words and more images in its micro-learning content to make it more visually appealing and effective. Additionally, the information is brief, which is crucial for maintaining students' interest. An executive from SQUARE Pharma has proposed that the idea of micro-learning be used by the government in public areas. This would contribute to raising public awareness of crucial issues like safety and health. Schools might also employ microlearning to instill moral values in students. Furthermore, micro-learning is an effective instrument that can be utilized to raise everyone in the company's level of expertise and knowledge. Additionally, it is a flexible tool that may be applied to a variety of subject areas.

Overall, microlearning is a strong and adaptable learning method that can completely change how we train and learn. A possible method of global learning is microlearning. It has the potential to increase learners' access to and effectiveness of education and training globally. Microlearning programs may be made in a variety of ways. The ideal strategy for a given institution will rely on its unique requirements and available resources. Although microlearning offers numerous benefits, it's also critical to be aware of its drawbacks. Because not all learning

objectives are best served by microlearning, it is crucial to combine them with other teaching strategies to help students get a thorough comprehension of the subject.

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# Appendix

The questions and the transcription of that interview are given below,

1. According to the perspective of the audience, how could the microlearning content be? / describe it.
2. Who are the audience here and how do you define it?
3. How a microlearning module can be strengthened and weakened by your perspective?
4. Are there any accomplishments of providing microlearning content over all the headquarters and plants according to you?
5. What parameters do you suggest to put in the contents of microlearning?
6. Which is the ideal time to educate anyone in the office regarding any topic via microlearning and why?
7. What tools are used in microlearning and what do you suggest that we must use? Who works behind it?
8. Do you think the microlearning concept should be introduced apart from the workplace in other fields like educational institutes or public places?

# Transcription of the interview

*Interviewer: Md Junayed Uddin*

*(HR Intern of SQUARE Pharmaceuticals PLC.)*

*Date and time: 1st September 2023*

*Location: SQUARE Center, 48 Mohakhali, Dhaka, Bangladesh.*

Question Number	Participants Name & Designation	Thoughts / Answers	Duration	Interviewer
1	<b>Mozammal Haque, Senior Executive, HR</b>	From his perspective, he described that the content of microlearning at corporate headquarters, plants, and depots should be related to day-to-day life. Here one thing needs to be mentioned by saying day-to-day life, he idolized health, household, professional life, and small technical skill-based learnings. Like, “How you’ll get a fast response from email?” this kind of topic. According to him this kind of content like health-related, will benefit from blue color employees to white color employees. Homogenous learning must be there and it must be played as all can grab ideas from it.	35.13 min	<b>Md Junayed Uddin (Intern)</b>
2	<b>Mr. Nurul, Manager, HR</b>	The audience varies cause the microlearning content must be played for the blue and white collar employees but their background and perspective vary towards the society and the content reflects the solutions and skills to prevent many problems there. To define the audience, we should use “neutral”, which means balanced, and thus the content should not make anyone uncomfortable.	26.02 min	<b>Md Junayed Uddin (Intern)</b>
3	<b>Mr. Masudul Alam, Senior Manager, GSD</b>	According to him, the module can have role-play-type content with vocals that will make him understand more as the content contains visuals with some writing and the music behind it. He also adds that the content must not exceed one minute and if then for thirty seconds as it can hold the attention of the audience for this kind of learning content. Besides the reading material must be	55.00 min	<b>Md Junayed Uddin (Intern)</b>

		understandable for all background employees. We can't use any terms that will not be understandable by common people like any technical term of disease or any rule of Excel.		
4	<b>Mr. Abdur Rahman, Executive, HR</b>	The outcome of microlearning is not measured in that way cause it is basically a learning module for a short period of time in the easiest way in their free time or a passive way of learning. However, if anyone learns something then it'll be fruitful like he said he learned about the right way to write the subject of the email to gain a fast response. He also added that the latest content about ergonomics will help the plant workers while they work at warehouses, this is also an accomplishment.	65.15 min	<b>Md Junayed Uddin (Intern)</b>
5	<b>Mr. Nurul, Manager, HR</b>	The parameters are simple the content must be within a minute, and the visual must not hamper anyone's beliefs, The materials should be easily understandable for all background employees and must be gained from all angles where it is published.	30.00 min	<b>Md Junayed Uddin (Intern)</b>
6	<b>Mr. Anisul Alam, Senior Executive, HR</b>	The ideal time for learning the content is lunchtime in headquarters and in plants cause apart from this time they have busy schedules all day. He suggested that the first morning hour before starting work employees have free time and have an energetic feel and if that time we can show them the content then they can grab more than lunch hour. Cause the fresh mind gets more. He also added that the screens at eye level also matter.	61.00 min	<b>Md Junayed Uddin (Intern)</b>
7	<b>Mr. Abdur Rahman, Executive, HR</b>	The tool here at SQUARE group is Microsoft PowerPoint, It's a basic tool but they use it cause all developers can use it easily and quickly. Also, other methods require some sort of advanced level of skill and money to buy the software and skilled labor. As it is fully voluntary and free of cost serving service, the authority is less reluctant to invest money. Besides the research takes time to gain authenticity and if we invest too much in everything then the content will be released late and the authority will not accept it.	48.00 min	<b>Md Junayed Uddin (Intern)</b>

8	<b>Mrs. Lora Saha, Executive, HR</b>	<p>According to ma'am learning should be open for everyone only the employees are learning some vital day-to-day life-related matters but the rest of the people still do not have access to learning. Especially in education institutes, they must introduce it. The concept is used in the advertising industry as it is shown on billboards in different places in the city but for learning, no one is taking steps. Also as metro rail is launched in Bangladesh the modernised railway station also takes this kind of initiative to educate mass people on basic things.</p>	30.00 min	<b>Md Junayed Uddin (Intern)</b>
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