



Daffodil
International
University

**An Analysis of The Impact of Material's Price Hike on The
Production Cost of Summit Communications Ltd.**

Prepared By:

Md. Mostafizur Rahman

ID: 203-14-3236

Major in Finance

MBA Program

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University.

Submitted To:

Mr. Nurul Mohammad Zayed

Assistant Professor

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University.

Date of Submission: 2nd April 2023

Letter of Transmittal

Mr. Nurul Mohammad Zayed

Assistant Professor

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University.

Subject: An Analysis of the Impact of Material's Price Hike on the Production Cost of Summit Communications Ltd.

Dear Sir,

It is my pleasure to demonstrate my experience and position for the organization where I am currently employed by submitting this report. I did my best to complete this report, including the necessary data and recommendations, in the most compact and thorough manner possible. This current position is helping to develop my professional skills while also building my corporate career. Through this report, I attempted to reinforce my learning and experiences. As a result, I am confident that the report will fulfill the expectations.

Yours sincerely,



Md. Mostafizur Rahman

ID: 203-14-3236

MBA (Finance)

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University

Student's Declaration

I am **Md. Mostafizur Rahman**, ID: **203-14-3236** student of MBA program, Daffodil International University, thusly pronounces that the internship report entitled on “**An Analysis of the Impact of Material's Price Hike on the Production Cost of Summit Communications Ltd.**” Completely ready by me during my employment at **Summit Communications Ltd** under the supervision and guidance of **Mr. Nurul Mohammad Zayed, Assistant Professor**, Department of Business Administration, Faculty of Business & Entrepreneurship, Daffodil International University.

I announce that this report entitled “**An Analysis of the Impact of Material's Price Hike on the Production Cost of Summit Communications Ltd.**” is submitted by me to Daffodil International University, Dhaka for the fulfillment of the MBA is of own and has not been submitted to any other university.



.....
Md. Mostafizur Rahman

ID: 203-14-3236

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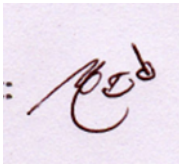
Daffodil International University

Certificate of Approval

This is to certify that **Md. Mostafizur Rahman**, ID: **203-14-3236**, a student of the MBA Program at Daffodil International University has prepared the internship report under my supervision. He is working at Summit Communications Limited as an Assistant Manager and completed the report entitled **An Analysis of the Impact of Material's Price Hike on the Production Cost of Summit Communications Ltd.** as a partial requirement for obtaining the MBA degree.

He has been permitted to submit the report.

I wish her all success in life.



Mr. Nurul Mohammad Zayed

Assistant Professor

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University.

Acknowledgment

First and foremost, I would want to thank Almighty Allah for providing me with the strength, opportunity, and willpower to successfully complete this internship report.

I am also grateful to everyone who encouraged and supported me during my internship.

I am grateful to my academic supervisor, Mr. Nurul Mohammad Zayed who assisted me in preparing my report.

Finally, I'd like to thank my pals Nasrin Sultana, Md. Hafizur Rahman, Jannatul Fardusi, Mohammad Musfiqur Rahman and Md. Tahmidur Rahman for their assistance with various aspects of my report.

Executive Summary

Analyzing production costs is very important for all sorts of companies. Because it will not only help to maximize revenue but also helps an organization enhance its production plan.

Our department is involved with different civil works which are required for network expansion. Under this topic I can present the impact of material's price change on our production cost over time (2017 to 2020) and give some suggestions that may help to reduce further production cost. From this analysis our company will be able to collect historical data by which analytical works will be easier. We have to prepare production cost data as well as materials cost in different periods. From this analysis we can collect those data anytime for case study, tender price quotation, management report or any further business report.

Besides, based on the findings and recommendations extracted from this report will be beneficial for the company as well as for my department. Because, I present different reasons behind higher cost of HDD, HH and CB productions as well as express some recommendations which will help to improve our work process and reduce the production cost.

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Chapter 1: Introduction

1.1 Internship Information

1.1.1 Student Information

Name: Md. Mostafizur Rahman

Student ID: 203-14-3236

Program: Master of Business Administrative (MBA)

Major: Finance

Company Name: Summit Communications Limited

Position: Assistant Manager

Department: Business Control

Office Address: 3rd Floor, TK Bhaban, 13 Kawran Bazar, Dhaka-1215

Employment Status: Permanent Employee

Employment Period: Employed since August, 2017 till now

1.1.2 Major Job Roles

- Review project estimate.
- Obtain financial forecasting data from different departments.
- Allocate funds for different projects.
- Follow up work order vs. actual work.
- Process vendor payment against WO/PO.
- Verify TA/DA of different departments.
- Prepare HDD machine production report.
- Performing account reconciliation on periodic basis.

1.1.3 Academic Supervisor Information

Name: Nurul Mohammad Zayed

Designation: Assistant Professor

Department: Department of Business Administration

Faculty: Faculty of Business & Entrepreneurship

1.1.4 Company Supervisor Information

Name: Md. Tahmidur Rahman

Designation: Manager

Department: Business Control

Company: Summit Communications Limited

1.2 Background of the Study

Daffodil International University (DIU) requires students to complete an internship at a reputed organization and prepare an intern report as part of their Master of Business Administration (BBA) degree. I have enrolled in Summit Communications Limited since 2017 as a permanent employee. So, I prepared the internship report based on my real work experience. As a result, I can enhance my work experience based on the academic skill gathered during studying MBA at Daffodil International University.

1.3 Objectives of the Study

The objectives of the study are divided into two types:

- General Objective
- Specific Objectives

General Objective

The study's main goal is to analyze the impact of material's price hike on the production cost of Summit Communications Ltd.

Specific Objectives

The study's particular goals are as follows:

1. To describe the break down of production cost of Summit Communications Limited.
2. To show Summit Communications Limited's network building operations through the production process.
3. To suggest some possible recommendations based on findings.

1.4 Limitations of the Study

There were a few constraints in preparing the report with rich assets. A portion of the urgent constraints are

- The finance policy of not revealing classified information and data is a major hindrance in setting up the report.
- Some assumptions are applied due to restrictions on some data which may impact on getting fully accurate output.
- The website of the company is not enough for effortlessly getting fundamental data.

1.5 Significance of the Study

The findings of the research will be useful to management in their efforts to improve the network-building work of Summit Communications Limited. Various historical data as well trend of material's price and production cost represented in the report which will help to preparing new budget, cost analysis, audit purpose and different field of the company.

1.6 Methodology of the Study

The methodology for the report includes direct observation, oral or verbal conversation with required department employees, study materials, and other analytical techniques and tactics, as well as current and historical dates, which may be included in the report. As a result, it includes only secondary data.

Secondary Data

- Company's Website
- Articles and Publications

Chapter 2: Company Overview

2.1 About the Company

Summit Communications Limited (“SComm”) is one of the leading end-to-end infrastructure support providers having Nationwide Telecommunication Transmission Network (NTTN) and Gateway licenses.

Being a concern of the Summit Group, Summit Communications Limited has close involvement in various ICT infrastructures of the country. Summit Communications Limited started its telecommunications transmission services in 2010.

Being a nationwide network, SComm has established access to over 44,000 Km fiber optic network across the nation covering all 64 districts as well as 463 Upazilas and more than 3,650 government offices. Besides, SComm is serving all the mobile phone operators, major Internet Service Providers (ISPs) all over the country.

2.2 Vision and Mission

2.2.1 Vision

To connect every household in Bangladesh with world class multi-media services with the objective to help develop a Digital Bangladesh.

2.2.2 Mission

- To establish and operate state-of-the-art telecommunication transmission network for the country’s ICT and Telecom sector.
- To innovate and implement state-of-the-art transmission technology with durable, reliable, scalable and affordable service quality.

- To explore and work toward future potential of different multimedia services on multi operator model.

2.3 Major Product and Services

Summit Communications Limited awarded different types of licenses to perform different types of tasks and services. Those are discussed below.

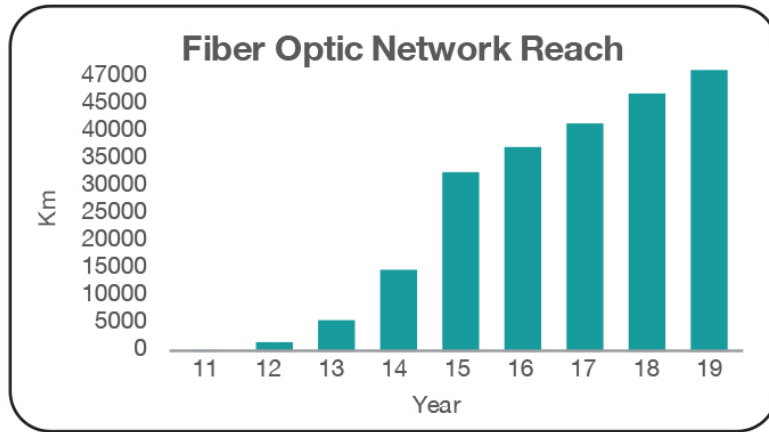
2.3.1 Nationwide Telecommunications Transmission Network (NTTN)

Summit Communications Limited (SComm) is a leading end-to-end infrastructure-providing company having the Nationwide Telecommunication Transmission Network (NTTN) and Gateway licenses. SComm provides high-capacity transmission services, international bandwidth services as well as internet services using it's state-of-the-art fiber optic networks with the latest technologies such as IP MPLS, Metro Ethernet, DWDM etc. Expanding a nationwide network, SComm has built access to more than 46,500+ KM networks reaching the every corners of the country by connecting all 64 districts, 492 Upazilas and more than 3,650 government offices. SComm has an ambitious plan of being the largest fiber optic infrastructure operator in the country with 100% nationwide coverage by 2017. SComm is the only NTTN service provider that has network access in Chittagong Hill Tracts.

Table 1: Whole Active Network Summary of SComm

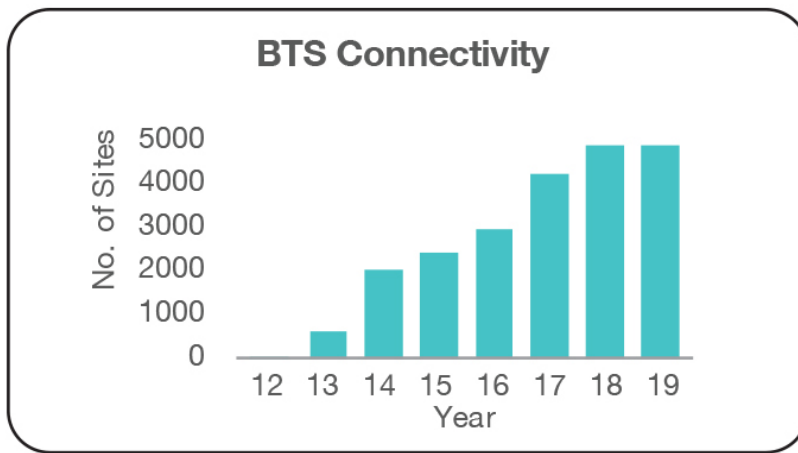
Network Details of SComm	
Own Network	44,700+ KM
Leased from PGCB	1,700+ KM
Leased from Telco and Govt. Organizations	100+ KM
Total Network Size	46,500+ KM

Nationwide Presence	
No. of District Coverage	64
No. of Upazilla Coverage	492



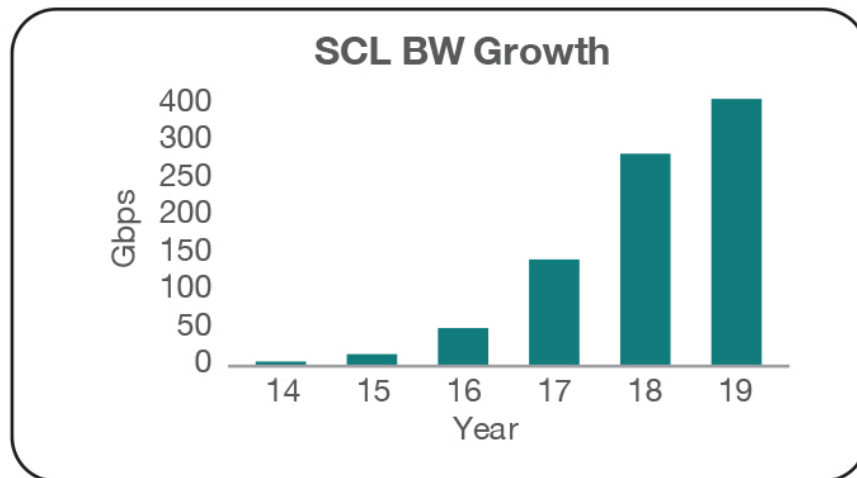
47,000+ Km Network Reach

Figure 1.1: OFC Reach of SComm



4158+ BTS Connectivity

Figure 1.2: BTC Connectivity of SComm



400+ Gbps BW

Figure 1.3: BW Growth of SComm

2.3.2 International Terrestrial Cable (ITC)

Summit Communications Limited is one of Bangladesh's largest International Terrestrial Cable (ITC) service providers, accounting for one-fifth of total industry bandwidth. SComm has acquired one of the top places in Bangladesh's telecommunications business as an ITC operator by guaranteeing 99.99% uptime.

SComm provides bandwidth via underwater cables such as I2I, IMEWE, TIC, TGN-EA, SMW3 and SMW4 in collaboration with Tata Communications Limited and Bharti Airtel. To give the greatest experience for its clients, SComm - ITC maintains tertiary-level redundancy in the terrestrial route with a disaster recovery center.

In recent years, SComm ITC has ensured 99.99% uptime in half circuit for enterprise networks. Over the previous few years, a growing number of enterprise links have joined as trusted partners. SComm ITC offers IPLC via SMW4 bearer and terrestrial network.

2.3.2.1 IP Transit

A high-quality service that connects our clients to the global Internet via the backbone networks of SCL's national and international partners. We have peering and caching facilities with Google, which eliminates upstream expenses for traffic to Google, allowing us to offer our customers competitive rates.

SComm ITC offers IP transit services via Tier-1 and Tier-2 carriers. Providing lower latency to popular CDNs such as Google, Facebook, Amazon, Netflix, and Akamai, among others. SComm becomes a trusted partner in Bangladesh for terrestrial segment IP routing by ensuring redundancy at the carrier level.

2.3.3 International Internet Gateway (IIG)

SComm is one of Bangladesh's largest International Internet Gateway (IIG) service providers, including connections to the International Internet via BSCCL (SMW4, SMW5), BTTB, Tata Communications Limited, Bharti Airtel Limited, Singapore Telecommunications Limited, COGENT, NTT, HURRICANE, and TIS. We also have IX connectivity with Equinix and SGIX in Singapore, as well as Mumbai-IX in India, via international IPLC services. This platform has improved client experience and geographical reachability. Our clients benefit from international IP coverage and convergence services throughout North America, Europe, and Asia-Pacific by utilizing our prestigious international networks. Despite having the most PoPs in cities and across the country, as well as an integrated network with global partners, our networks are fully redundant with nearly 99.99% uptime. SComm has already established rld class (1+1) infrastructure systems and services for IIG network customers.

Summit Communications Limited offers IP Transit network services to medium and large-sized customers. It is a service appropriate for Internet Service Providers who have a public AS (Autonomous System) number and the hardware and expertise to handle dynamic BGP routing.

2.3.4 Interconnection Exchange (ICX)

In 2012, SComm got an ICX License from BTRC, allowing it to construct, operate, and maintain interconnection exchange services in order to provide telecommunication services (terminating to and originating from Bangladesh). SComm facilitates inter-operator domestic voice conversations as well as international incoming, outgoing, and roaming calls between Access Network Service Operators and International Voice Gateways (IOS, IGW). Our infrastructure has been constructed in Dhaka, Chittagong, and Sylhet. SComm is the pioneer in routing local, international, and roaming call services among Bangladesh's 26 ICXs, ensuring 99.99% uptime, loss-less voice quality, and optimal routing.

SComm ICX provides services to all Mobile operators, all IOS operators and all major IPTSP/PSTN operators. SComm ICX is currently capable of carrying 49751 concurrent calls where present BHCA is 3-4 million

2.3.5 National Internet Exchange (NIX)

SComm NIX allows NIX users to exchange domestic inter-operators data services and inter IPTSP domestic voice calls via Multi-Lateral Peering Agreement (MPLA) by keeping local traffic in Bangladesh instead of sending those messages across multiple international hops to reach their destination, thereby improving connectivity and services for our customers. In accordance with the commission's guidelines, SComm NIX operates, maintains, and establishes an Internet Exchange, knowledge centers, research facilities, and other types of institutions to centrally exchange local traffic and contents and to provide international content to their NIX users via the NIX network.

2.3.6 Summit Towers Limited (STL)

Telecom towers are regarded as the lifeblood of mobile telecommunications systems. Summit Communications Limited's subsidiary Summit Towers Limited (STL) (SComm). The Bangladesh Telecommunication Regulatory Commission (BTRC) granted the Company a tower sharing license in 2018 to build and operate tower infrastructures enabling tower-sharing services across the country. STL aspires to promote ubiquitous and affordable access to mobile networks and the Internet as part of the UN's Sustainable Development Goal - 9. Furthermore, the tower-sharing service model makes greater use of the same infrastructure resources, hence becoming ecologically responsible and lowering communication costs for end users.

Summit Communications, with its existing nationwide presence via fiber optics network and other services, and its recent investment in STL, is the only private organization in the sector that offers an end-to-end telecommunication infrastructure service provider. As a result of its current 26 sub-centers, more than 1,500 POPs, and well-established supply/value chain, STL has a competitive edge.

2.4 Major Competitors

Currently there are six NTTN license holder in Bangladesh. Among five competitors of Summit Communications Limited, two is government owned agency and two is private owned company. Fiber @ Home Limited is the major competitor of SComm.

- Bangladesh Railway
- Bangladesh Telecommunications Company Limited (BTCL).

- Fiber @ Home Limited
- Bahon Limited

2.5 Other Companies of Summit Group

The mother company of Summit Communications Limited is Summit Group. Summit Group owned many reputed companies under its subsidiary. Some of them are mentioned below.

- Summit Industrial & Mercantile Corporation (Pvt.) Ltd.
- Cosmopolitan Traders (Pvt.) Ltd.
- Cosmopolitan Finance Ltd.
- Summit Power Limited.
- Summit Turbine Division.
- Summit Shipping Ltd.
- Summit Alliance Port Limited
- United Summit Coastal Oil Ltd.
- Summit Asia Pacific Pte. Ltd.
- Resources & Solutions Ltd.
- Summit Developers Ltd.
- Summit Towers Ltd.

Chapter 3: Analysis of Production and Costs

3.1 Network Expansion and Maintenance Work

SComm has already established access to over 44,000 Km fiber optic network across the country covering all 64 districts as well as 463 Upazilas and more than 3,650 government offices.

The network expansion work of Summit Communications Ltd. under NTTN license has consist of three parts. Those are HDD work, HH Making and Cable blowing work. The network expansion and maintenance work is conducted by using underground optical fiber cable.

Figure: Process of SComm Network Expansion through OFC

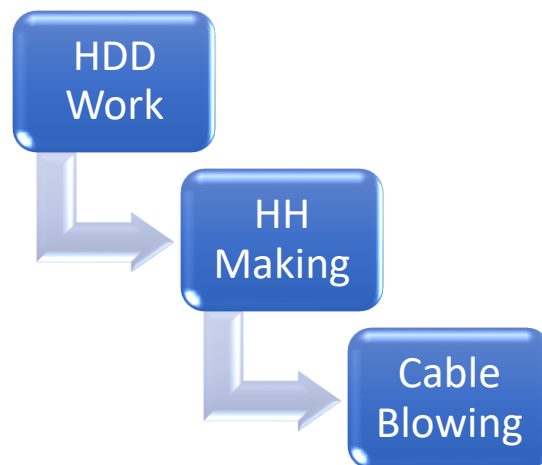


Table: Market price of basic materials in UG work during 2017-2021

	2017	2018	2019	2020	2021
Pickup	2200	2200	2200	2500	2900
Labor	450	500	550	550	600
Fuel (Diesel)	65	65	65	65	65

Cement	390	455	420	425	535
Sand	38	38	38	54	66
Stone	177	196	175	212	242
Rod	52	65	64	63	85

3.2 Horizontal Directional Drilling (HDD) Work

Horizontal Directional Drilling (HDD) is a popular method of installing pipelines in metropolitan settings and for traversing barriers such as rivers and roadways. HDD is characterized as a steerable system that uses surface-balanced drilling equipment to lay pipes, conduits, and cables in a shallow.

Horizontal Directional Drilling (HDD) is a technical approach for constructing underground services including cable and pipe lines. Initially, it was used to install pipe networks for water distribution or sewage conveyance. Horizontal Directional Drilling (HDD) is now utilized to install infrastructure such as telecom and power cable conduits, water and sewer pipes, oil and gas lines, and so on. The technology has grown over the previous 30 years, beginning as a preferred pipeline building option for crossing big waterways or subsurface surfaces.

As the installation involves heavy drilling equipment, it is often more expensive than standard open-cut or manual procedures for the same length of installed pipe.

3.2.1 Scomm HDD Work

HDD work is one of the most important work SComm. Because, the NTTN network length is measured by the length of HDD work.

Image 3.1 : SComm HDD work



3.2.2 Budget of HDD Work

HDD work is the main part of Underground (UG) network expansion work and it is the first part of the work which is complex and heavy cost associated. A budget for 1000 meter HDD work has given below.

Table 3.1: Budget of HDD Work

Particulars	UoM	Unit	Price	Total
Labor House Rent	nos	1	10000	10000
Store Rent	month	1	20000	20000
Lowbed Machine Rent	nos	1	20000	20000
Water	ltr	60000	0.05	3000
Brick	nos	80	11	880
HDD Fuel	ltr	180	80	14400
Pickup Fuel for Mobilization	ltr	120	80	9600
Pickup Fuel for daliy Hdd work	ltr	36	80	2880
Labor Convince	nos	15	700	10500
Store Patrol Duty Manpower (Hired)	nos	4	700	2800
Daily Labor with HDD machine	nos	20	700	14000
Daily labor for pit cutting	nos	10	700	7000
Duct De-coiling and preparation for Duct pulling	nos	15	700	10500
HDD Machine Patrol Duty Manpower (Hired)	nos	4	700	2800
Pickup Toll for Bridge Crossing & Others	nos	2	1200	2400
Pickup 3 Ton (HDD)	nos	12	3500	42000
HDD Machine Maintenance	nos	1	15000	15000
Total Budget				187760

A budget expressing average year ending material price of 2021 has presented in the table above. The budget has prepared considering a HDD work of 1000 meter in a urban area. Total estimated fund required to complete 1000-meter HDD work is BDT 187,760. That means the expected expense for each meter HDD work is BDT 188. The operation team is encouraged to complete the work within the forecasted budget.

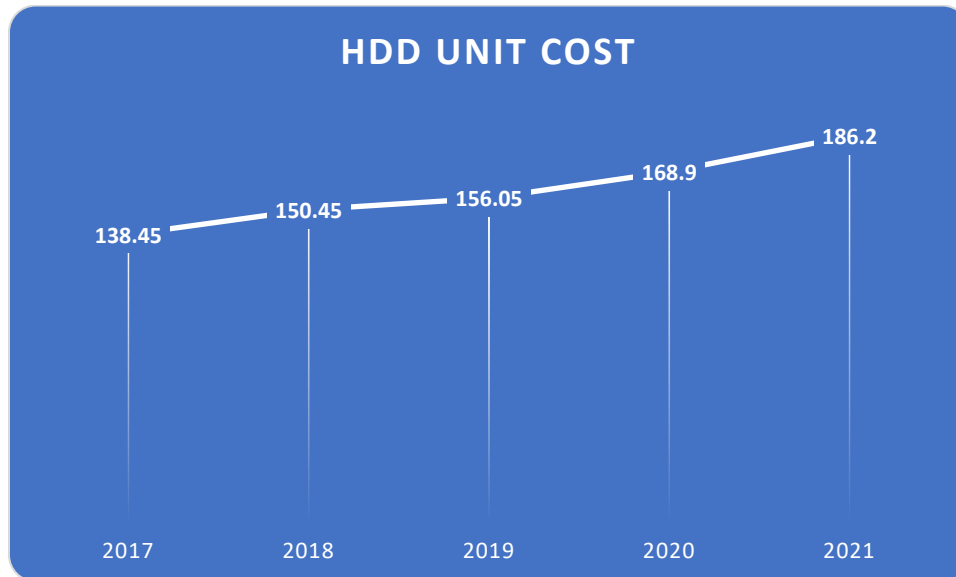
3.2.3 Actual HDD Production Cost

The HDD production cost from 2017 to 2021 has been represented in a table and line diagram which are discussed below;

Table 3.2 : HDD Production Cost Per Meter (2017-2021)

Year	Unit Cost	Change (%)
2017	138.45	
2018	150.45	9%
2019	156.05	4%
2020	168.9	8%
2021	186.2	10%

Figure 3.1: HDD Production Cost Per Meter (2017-2021)



The table and line diagram represent the cost of HDD production per meter during the period of 2017 to 2021. Some of the major civil construction items such as rod, cement, stone, sand ect. Are not used in HDD work. As a result, price fluctuations of those items are not much affect on the HDD production cost. On the other hand, some important component such as pickup and labor are important requirement of the HDD work. Price of labor wages and pickup rent has enhanced a bid gradually over time. So, HDD production cost has increased slowly. The price of HDD production per meter was BDT 138.45 in 2017. After 9% increasing it becomes BDT 150.45 in 2018 and become 156.05 per meter in 2019. In 2020, it became 168.9 per meter and 186.2 in 2021.

3.3 Hand Hole (HH) Construction Work

Hand Hole is an important part of network expansion through HDD work. Generally, a Hand Hole build between every 400 meters to 600 meters range which depends on the geographic condition of the area. Patch cord of two duct joined in the hand hole as well as it helps to bring out connection for the main line in order to provide connection to any client and make overhead expansion through pole.

Image 3.2: HH Construction of SComm



3.3.1 Scomm Hand Hole (HH) Construction

Every year Scomm has to build lot of hand hole for its optical fiber network expansion using HDD work. The most used RCC HH dimension is (1200x1075x900) mm.

3.3.2 Budget of HH Construction

The budget for making an RCC Hand Cole building at the price of end of 2021 has given below.

Table 3.3 : Budget of HH

Work Type	Unit	Quantity Required	Unit Price	Total Price
Rod for HH and Slab Making	Kg	180	80	14,400
Cement for HH and Slab Casting	Bag	10	535	5,350
Stone for HH and Slab casting	Cft	48	250	12,000
Sylhet Sand For HH and Slab Casting	Cft	35	70	2,450
Labour For HH Making	nos	6	700	4,200
Pickup rent for HH and Slab casting	nos	1	3,500	3,500
Labour for HH Slab Casting	nos	2	700	1,400
Labour for HH Slab placement	nos	-	700	-
Pickup for Slab placement	days	-	3,500	-
Wood For HH and Slab Casting	Sft	3	480	1,440
Sand Filling for HH in	Cft	48	45	2,160
Labour for Sand Fillup cost	Nos	1	700	700
Others Materials/Hardware	nos	1	10,000	10,000
Total Budget				57,600

The above table represents an estimated budget based on market price in December 2021.

To prepare a Hand Hole (HH) we have to use 180 kg rod for hh and slab making and among them 90 kg uses for HH with 12 mm rod and 90 kg for 2 slab with 16 mm and double layer. 10 bag cements for each hh with slab. besides, for each hand hole we requires 48 cft stone for hh and slab

casting, 25 cft sylhet sand for hh and slab casting, 40 cft sand for hh filling . Moreover, we have to keep BDT 10,000 for other materials and miscellaneous.

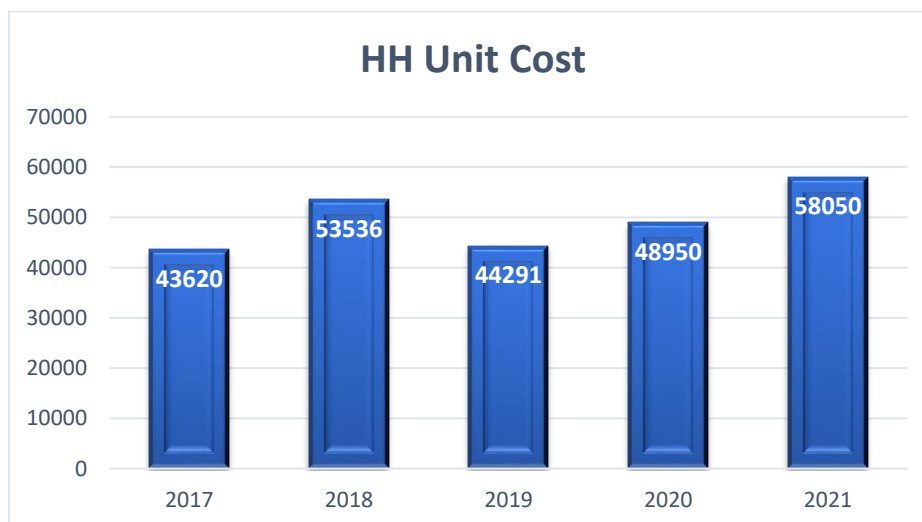
3.3.3 Actual HH Manufacturing Cost

The HH production cost from 2017 to 2021 has been represented in a table and bar diagram which are discussed below;

Table 3.3: HH Manufacturing Cost Per Unit (2017-2021)

Year	HH	Change (%)
2017	43620	
2018	53536	23%
2019	44291	-17%
2020	48950	11%
2021	58050	19%

Figure 3.2: HH Manufacturing Cost Per Unit (2017-2021)



The table and line diagram represent the cost of each number of Hand Hole (HH) manufacturing during the period of 2017 to 2021. It can be said that, the cost of each HH has been affected by the change of material's price. Major elements of a HH are Cement, Rod and Stone which price was increased sharply in 2018 which increase the rate 23% and the HH cost raised to BDT 53,536 per unit. The price of construction materials was increase due to L/C issues. The price range of materials back to normal range in 2019 which lead to decline the HH cost by 17% and the stood at BDT 44,291 per unit. But, price of most of the materials increased in a large amount in 2021 due to COVID19 Pandemic which leads to increase the price of HH 19% compared to the price of 2020 and the final price stood at BDT 58,050 in 2021.

3.4 Cable Blowing Work

Cable Blowing is the last stage of SComm network expansion through underground optical fiber connection. This is comparatively easier and faster work compared to HDD work and HH Building work. As a result, budget for the work is lower than others.

3.4.1 Budget for Cable Blowing Work

A budget for 1000 meters of cable blowing completion has given below. Unit price is considered as per the average market price of the year.

Table 3.4: Budget of Cable Blowing

Particulars	UoM	Qty	Unit Price	Total Price
Daily Labor	Nos.	7.0	600.0	4,200
Pick up	Nos.	1.0	3,164.0	3,164

Pick up fuel	Km	40.0	22.0	880
Air Compressor Diesel for CB Machine	Ltr	40.0	80.0	3,200
Octene-Honda Power Pack	Ltr	10.0	89.0	890
Power Oil Duct Cleaning Purpose	Ltr	1.0	250.0	250
Jute, Foam Tie	Ltr	1.0	500.0	500
Total Budget				13,084

The budget represents the cost of per 1000 meter or 1 kilo meter. Here the cost per kilometer is BDT 13,084 which mean that cost per meter is BDT13.08.

3.4.2 Actual CB Production Cost

The CB production cost from 2017 to 2021 has been represented in a table and line diagram which are discussed below;

Figure 3.3: CB Unit Cost (2017-2021)

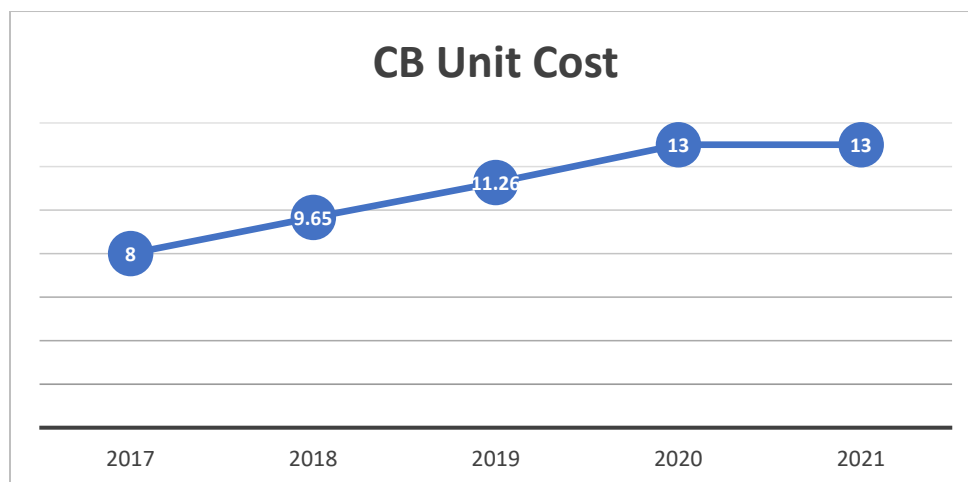


Table 3.5: CB Unit Cost

Year	Unit Cost	Change (%)
2017	8	
2018	9.65	21%
2019	11.26	17%
2020	13	15%
2021	13	0%

The line diagram and the table represent the Cable Blowing cost per meter during the period of 2017 to 2021. The cost was BDT 8 in 2017. It- was increased rapidly in 2018 by 21% and become BDT 9.65 per meter. It was increased by 17% in 2019, 15% in 2020 by becoming BDT 13 per unit and the price is remain unchanged in 2021. Price of rod, cement and stone increased a lot during 2020-2021 but those materials are not used in CB purpose. Price of materials used in CB remain comparatively unchanged during the period. As a result, unit cost was not increased in the year of 2021.

Chapter 4: Findings and Recommendations

4.1 Major Findings

There are some issues that may cause both costs increasing as well as delaying in work completions. Some major findings are discussed below.

Problem

Rented Vehicles: Different types of vehicle are required for project works. Three pickups is a mandatory requirement for HDD work and Hand Hole manufacturing. Two pickups always attached with each HDD Machine in order to carry water tank and pipe, and one pickup required for HH materials and shutter carrying. Some times it is difficult to arrange vehicle in short time which is responsible for delaying of work. Besides, rent of pickup is much higher than actual cost.

Small Purchase Quantity: The company conducts different types of network building all over the country. Generally, most of the materials are purchased from local retailers. As a result price of the materials are being comparatively higher.

Labor Team Dependency: Scomm uses some selective labor team for it's network building works as there are some technical experience required. As a result, there are less negotiation options during labor hiring for project work which is a barrier in cost minimization.

Inter-Department Collaboration: There should have proper collaboration between the Operations and Corporate Affairs Department. Because sometimes operations and related departments prepared for project work but after reaching the work area they find that the work permission is not approved for the local authority yet which increases project cost and duration.

Scatter Work Plan: SComm has to conduct various network expansion work all over the year. Some of the work planned have a long time in hand. But, most of the works conducts separately. As a result, some fixed cost such as vehicle movement expenses and labor conveyance etc. require which rise the project costs a lot.

4.2 Recommendations

Based on the analysis of the report as well as real-life work experience in the organization, some solutions and suggestions will be discussed which might reduce various problems as well as increase profitability by reducing costs.

Own Vehicle: The company can buy some own vehicles as vehicles are required regularly for network expansion work. It will help to reduce transportation cost associated with network expansion.

Purchase from Company: In large projects, SComm needs huge amounts of rod, cement, stone etc. If it can purchase those materials directly from company or prime suppliers, then production cost will be reduced a lot.

Search More Labor Team: SComm have to search for more labor team for its work which will reduce monopoly among labor team and reduce production cost.

Work Under Project Manager: If all department work under a single project team then cross-functional work will be smoother,

Combined Budget: If the company can predetermine the project work in similar area earlier and prepare combined budget for those work then unnecessary fixed cost such as store rent, pickup rent, labor conveyance etc. will be reduced and production cost will be decreased which will maximize the profit of the company.

4.3 Conclusion

Summit Communications Limited is one of the growing and topper company in the network and internet service industry. It has to regularly expand its network range, upgrade existing device as well as maintenance current network due to various reasons. Network expansion is the core activities of Summit Communications Limited and the company is its network line for own network as well as to lease the line to reputed organizations that bring high volume revenue to the organization. Network of the company considered as capital expenditure. So, reducing the network expense will help the company in reducing costs which is ultimately helps to increase revenue. The analysis and data shows in the report will help the company to further analysis in order to cost reduction of network expansion work.

List of Acronyms

DIU	Daffodil International University
SCL	Summit Communications Limited
SComm	Summit Communications Limited
NTTN	Nationwide Telecommunications Transmission Network
DWDM	Dense wavelength-division multiplexing
PGCB	Power Grid Company of Bangladesh
MPLS	Multiprotocol Label Switching
ITC	International Terrestrial Cable
IIG	International Internet Gateway
ICX	Interconnection Exchange
NIX	National Internet Exchange
STL	Summit Towers Limited
HDD	Horizontal Directional Drilling
HH	Hand Hole
CB	Cable Blowing

Reference

1. Horizontal Directional Drilling (HDD) construction procedure. (n.d.). ResearchGate GmbH.
(Retrieved February 5, 2022, from https://www.researchgate.net/figure/Horizontal-Directional-Drilling-HDD-construction-procedure-Platosh-2010_fig1_33426380)
2. Milestone. (n.d.). Summit Communications Ltd.
(Retrieved May 14, 2022, from <https://www.summitcommunications.net/scl-milestone>)
3. Network Map. (n.d.-b). Summit Communications Ltd. Web Site.
(Retrieved January 23, 2022, from <https://www.summitcommunications.net/nationwide-network-map>)