

Report On
The Supply Chain Management Process and to overcome its
challenges
A Study on Transcom Beverages Limited

By

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

BRAC Business School
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Declaration

It is hereby declared that

1. The internship report submitted is my own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

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Letter of Transmittal

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Subject: Submission of Internship Report on “The Supply Chain Management Process and to overcome its challenges: A Study on Transcom Beverages Limited”

Dear Sir,

With due respect and honor it is to inform you that I have prepared the report titled on “The Supply Chain Management process and to overcome its challenges: A Study on Transcom Beverages Limited “as per your instruction being appointed as commercial intern in the enterprise. I have given my utmost sincerity in preparing the report and tried to make this report as informative and comprehensive as I could in an extensive compact and detailed manner.

I therefore, hope that the report will meet your expectation and will promptly be able to answer your questions

Sincerely yours,

Meer Mustafa Nayeem

17164023

BRAC Business School

BRAC University

Date: 06/01/2020

Non-Disclosure Agreement

This agreement is made and entered into by and between Transcom Beverages Ltd and the undersigned student at BRAC University Meer Mustafa Nayeem

Acknowledgement

Firstly, I am very thankful to Allah the most beneficent and merciful who gave me strength to complete this report. This report completion wouldn't have been possible without the support of many people and I am acknowledging them here.

I have been deeply appreciated and encouraged by my Supervisor Mr. Shamim Ahmed who guided me throughout the report and assisted me to give a form to my report. I thank him for his enthusiasms, being supportive and guidance towards me

I am also thankful to Shazzadur Rahman, Manager (Head of Commercial, TBL) and Waliur Rahman, Senior Executive (Commercial, TBL) & Harif Uzzaman Executive (Commercial) for finding out time from their busy schedule to help and guide me.

I want to express my gratitude and for having the opportunity to work well in the organization

With the help of every piece of information given by my Team Members I have completed my report effectively and on time. The feedback and assistance I got while working with TBL helped me to complete the report successfully.

Lastly, I would also like to thank my peers and friends who were beside me during the preparation of the report. Without their support, suggestion and co-operation, this task would have remained undone.

Executive Summary

The global marketplace with an environment friendly scenario provides chain management as an incredible competitive gain for a trade. Supply chain managers plan, schedule, and control that stream of objects to help the agency remain competitive and manipulate costs. They construct the bridges between suppliers, companies, and consumers. TBL being the dominating beverage venture in Bangladesh has been contributing to the economy by offering fine consumer product in a comparatively sensible price. In this report I focused on the entire supply chain management process of my assigned company which is Transcom Beverages limited. The report reflects the forecast of demand, material planning, capacity planning, analysis of their operation strategy also the tedious operation process, factory layout and supply chain management execution from the production to warehouse from the distribution to ultimate consumer. TBL aims to have a reduction in the inventory and simultaneously increasing stock availability. The reader can get the overview of the total supply chain management process through this report.

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List of Acronyms

TBL	Transcom Beverages Limited
PO	Purchase Order
LC	Letter of Credit
BL	Bill of Lading
TR	Truck Receipt
AWB	Airway Bill
ERP	Enterprise Resource Planning
PI	Proforma Invoice
CI	Commercial Invoice
LCAF	Letter of credit authorization form
IMP	Import Permit
MRP	Maximum Retail Price
NOC	No objection Certificate
MOQ	Minimum Order quantity
FG	Finished Goods
COI	Certificate of Origin
HS	Harmonized System
ROFO	Right of First Offer
RFID	Radio Frequency Identification

Chapter 1 -

Introduction

1.0 Introduction

The beverage industry produces and bottles carbonated beverages which is carbonated soft drinks and consisting of fruit flavored beverages, colas, iced tea and coffee, soda waters, tonic waters and different mixers. The enterprise also provides different liquids like fruit juices, fruit drinks, bottled water, sports activities drinks and power drinks. The soft drink enterprise used to be traditionally primarily based completely on a franchise gadget which characterized the smooth drink industry worldwide. The bottler was once restrained to buying the proprietary method concentrates and/or syrups from a single supply - the franchise organization (franchisor) which held the registered trademarks of a wide variety of soft drink brands. The franchiser established pricing insurance plan policies and provided overall advertising and employer advertising support. Besides our regular meals consumer of Bangladesh like to take western meals additionally after 1980s. Different foreign places meals groups have been established in Bangladesh. Beverage industry is one of them. Yoghurt, soup and lacchi are additional beverage of our non-public way of lifestyles which fed on for the closing a hundred years in Bangladesh. But carbonated beverage is new in Bangladesh and these days our look up is on carbonated beverage business enterprise in Bangladesh. Carbonated beverage entered into our enterprise in the later part of 1980. At that time there have been solely few companies in Bangladesh. But through the alternate of time and western subculture influences it's grown to be very famous in Bangladesh. By year 2000 extra 12 Beverage Company is working in Bangladesh and most of them are foreign companies. So TBL is the famous amongst them and right here the entire document is primarily based on the supply chain management process of TBL.

1.1 Origin of the report

This report is presented as an academic report of the MBA program at BRAC University and to mirror the professional view of real-world working environment. I obtained proper supervision from my academic supervisor Mr. Shamim Ahmed, Deputy Registrar, Associate Dean, BRAC Business School, BRAC University for the duration of the selected period for the successful completion of the record titled - “The Supply Chain Management process and to overcome its challenges: A Study on Transcom Beverages Limited”

The study has the following purposes:

- To accomplish the requirements of the MBA program
- To relate with the real world pragmatically with the teaching performed by mentors in MBA program
- To learn about job responsibility
- To get exposure in real business world

1.2 Objectives of the report

The main objectives of the report are stated below:

- ❖ To understand the Operation process of TBL and its value addition
- ❖ To comprehend the execution of Supply chain management process of TBL
- ❖ To find out the challenges and provide solutions
- ❖ TBL’s contribution to the economy.

1.3 Scope of the report

The report is illustrated with the pragmatic experience and theoretical knowledge in sync with the real picture of the workplace and to this here in this report I contemplated deeply on the “The Supply Chain Management process and to overcome its challenges” in relevance with the supply chain management system with comprehensive knowledge from the workstation

1.4 Methodology of the Report

To know about Transcom Beverages Ltd. Primary and Secondary data approach were applied to collect the information from relevant research and development done by the operation, production, quality control, distribution, marketing, sales, service and other departments. The sources are:

a. Primary Sources:

- Interaction with the peers and operation managers
- On factory visit
- Importers, distributors, sales team etc.
- Hard copy of previous records

b. Secondary Sources:

- Sales records
- Company Magazine
- Newspapers
- Websites

1.5 Sample of the study

To conduct the finding and analysis part, I have taken 20 samples of respondents to validate the analysis from 12 questions being constructed with demographic and SCM Process and Practices.

1.6 Limitations of the study

The following issues are the limitations of the study-

- The Information about TBL is not available on the internet that much.
- As it was a peak time for the demand in the market so the employees of my department were busy in sourcing the items for production and the factory employees too.

Chapter 2 – Literature Review

Many agencies have complete the importance of developing a integral relationship with the suppliers and customers. This coincident integration of shopper needs, integral processes and upstream dealer overall performance is observed as provide chain administration (Tan, Kannan, Handfield & Ghosh, 1999). Adopting appropriate SCM practices will thus grant a decent avenue to satisfy structure goals. The Council of provide Chain Management skilled defines provide chain management as encompassing the design and administration of all activities within the drinkable trade. significantly, it conjointly consists of coordination and collaboration with channel partners, which might be suppliers, intermediaries, third-party service suppliers, and customers. In essence, provide chain management integrates provide and demand management inside and across organizations (Grant,Lambert, Stock & Ellram, 2006). The term ‘Supply Chain Management’ (SCM) was introduced by consultants within the early Nineteen Eighties (Lambert & Cooper, 2000). it's its origins within the supplying literature (Bowersox, Romano & Giannakis, 1999) and supplying has persevered to possess an enormous have an

impact on the idea. The scope of SCM has widened over time from intra-organizational put attentiveness to further interorganizational issues (Dubois, Hulthen & Pedersen, 2004). provide chain may be outlined usually as wherever 3 or further corporation from a supply to a shopper (Mentzer, Min & Zacharia, 2000). during this context of study, SCM entails managing sophisticated waft of knowledge, materials and cash across multiple areas each within and amongst organizations. The intention is to realize goals associated with total machine performance. With the up to date business surroundings, businesses cannot battle entirely as people companies. they need to be counted on the opposite companies within them provide chains to with success vie in the international market of the beverage trading.

Chapter 3 -

Company Overview

3.1 History of Transcom (TBL)

Latifur Rahman set up Transcom Group in 1973 after W Rahman Jute Plants, the basic earnings source for the Rahman family, was nationalized in 1972. This diverse endeavor home presently has interests in numerous portions within the electronical and different segments in Bangladesh. Transcom is the adjacent operator of universal brands like Pizza Hovel, KFC, Pepsi and Philips, etc. Driving Danish affront maker Novo Nordisk has too chosen Transcom's pharmaceutical boss Eskayef as the sole producer of its items after China and India in Asia. A few of the outside producers overseen by way of the gather incorporate: Pepsi, 7Up, Mirinda, Mountain Dew, Eat less Pepsi, 7up Light, Aquafina., Evervess, KFC, Pizza Cottage, Frito-Lay. TBL begun its travel with starting tea ranches in 1885 and presently Transcom has developed itself as one of the driving and speediest growing diversified commerce houses within the nation with the business of over 10000 individuals. There are not numerous industrial groups in Bangladesh that has a legacy of continuous improvements and progressive business pursuits

at a stretch over 125 years. Initiated with tea and later jute formed the base and backbone of the family business. There is a marginal overall group turnover. In the late years, Transcom has appeared as the biggest media house. And from the initiation of tea plantation now Transcom beverage has become one of the major concerns of Transcom in franchisee at the year 2000 under an exclusive agreement with PepsiCo Inc of the USA.

3.2 Company Description

Transcom Beverage Ltd (TBL) is the exclusively PepsiCo Franchisee for Bangladesh, it possesses the total franchisee and make utilize of their current vegetation in Dhaka and Chittagong for bottling the celebrated delicate drink brands such as, Pepsi, 7UP, Mirinda, Cut, Mountain Dew, Pepsi Count calories , 7UP Light and as of late included is Tropicana (mango, Orange and Apple). The organization is booming with the proverb to convey economic boom in Bangladesh and advancement toward a managing Beverage Company with the help of illuminating & feeding each and each Bangladeshi by satisfying their regular beverage needs & partners and turning in generally execution with reason, through capable and apt people. 2009 has been a breathtaking 12 months for TBL, triumphing incalculable breathtaking grants as PepsiCo's uncommon bottling relate in Bangladesh. For its staggering and awesome mission through brilliance TBL has been remunerated with endless prestigious national and worldwide acknowledgments being ASIA BEST EMPLOYER BRANDS AWARD 2015 at a ceremony took place on 12th August at pan Pacific Hotel, Singapore. The Gazipur factory of Transcom Beverages Limited won the first prize from the Europe Audit Team for the most advantageous overall performance in Pepsi Cola production. It outdated all different Pepsi Cola production plant life in the world by way of scoring 900 points out of 1000 points.

3.3 Mission & Vision of TBL

Mission of Transcom

MOULD SMILES WITH EVERY SIP AND EVERY BITE

Transcom provides consumers with affordable, healthy, tasty and quality beverages and dedicated in making investments in our people, business enterprise and the communities where we operate to assist functioning the enterprise for long-term, sustainable growth. Motivating employees by providing financial rewards to traders as we supply possibilities for growth and enrichment for employees, companions and neighborhood in which we operate. Ensuring honesty, fairness and integrity in every line of our work.

Vision of Transcom

TO BE THE GLOBAL LEADER IN BEVERAGES BY WINNING WITH PURPOSE

This displays our ambition to win sustainably in the market and enhance our top line growth, while preserving our dedication to do true for the world and our communities. It builds on many years of progress we've made when you consider that Transcom used to be based in 1965, while setting a firm foundation for a new era of boom and prosperity. To help us reap this vision, we've described a new set of aspirations: to grow to be Faster, Stronger, and Better.

3.4 Concerns of Transcom:

- ❖ Pharmaceutical – Eskayef
- ❖ Beverages- PepsiCo
- ❖ Consumer-PepsiCo, Mars, Conagra Brands
- ❖ Foods- Yum! Brands, A&W Restaurants
- ❖ Media star- Prothom Alo, ABC Radio

❖ Electronics- Transtec (AC)

❖ Tea Holdings Ltd

3.5 Products of TBL

Pepsi is the primary and the most hyped product of PepsiCo. But the other products also achieve huge amount of profit. The main products which are used in our country: All products packs size is – 250 ml, 500 ml, 1 liter, 2 liters

- Pepsi
- 7up
- Mirinda
- Diet Pepsi
- Mountain Dew
- Tropicana – Apple, Mango, Orange
- Drinking Water – Aquafina
- Soda – Evervess



3.6 Organogram of TBL

PepsiCo BD or Transcom Beverage Ltd is entirely an individual entity and has their own planned operational management hierarchy from any other part of Transcom Group.

Transcom Beverage Ltd. has its organogram provided by the Human Resource team and approved by the central management.

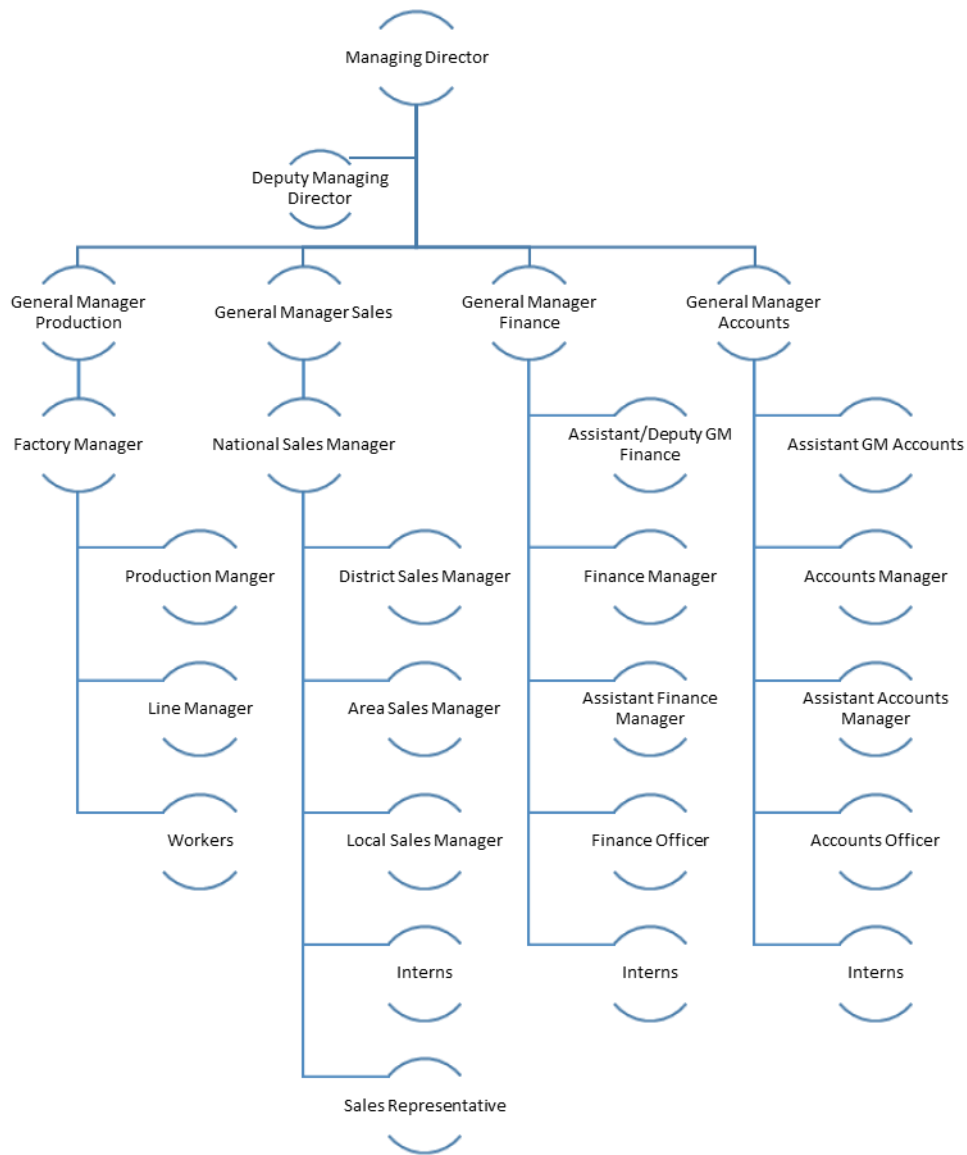
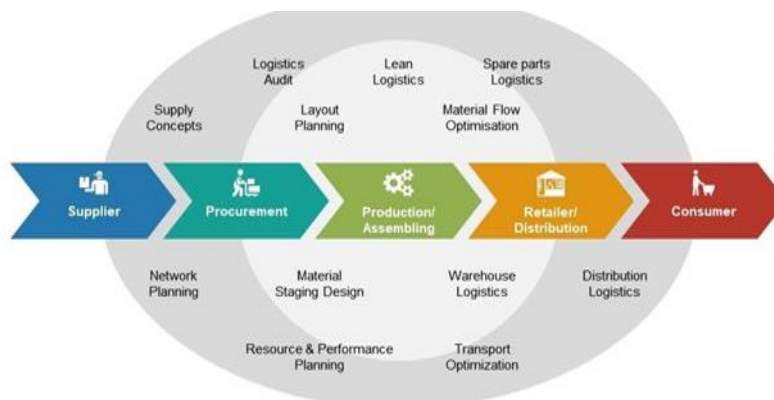


Fig 1 – Organogram of TBL

Chapter 4 - Supply chain Management Process with challenges & solution



4.0 Supply chain Management Process of TBL

Transcom has acquired an effective supply chain management which has made them competitive and become a sophisticated supply chain environment all around the globe. The whole supply chain management is divided into parts:

🚧 Upstream

🚧 Downstream

Upstream – Its basically related with the process before manufacturing. Here the raw materials are the source to make a product. Transcom determines a balanced proportion of raw-materials which won't be over stock or under stock because due to this there might be surge in the working capital cost if its overstock and lower inventory will obstruct production.

Downstream- It is done at the time of production starting from the collection of raw-materials and then the manufacturing plants starts to manufacture its product by mixing the raw-materials. TBL ensures quality at every stage of production so the mixing of raw-materials is done with great sincerity.

TBL follows two types of Supply Chain Management. These are

- Typical Supply Chain management
- Vertical Supply Chain Management

Typical Supply Chain Management – Relating with the point TBL first places a purchase order to the supplier. After getting the acceptance from the supplier then they receive commitment where the supplier writes necessary information's and sends the shipment invoice of the product for payment

Vertical Supply Chain Management –

TBL categorized the Vertical supply chain management into two categories

Backward vertical integration

Backward vertical integration has implications on Transcom Beverage where some of the sugar mills in Bangladesh supply sugar and TBL buys from them for production the acquiring of raw-materials.

Forward vertical integration

It's from the Manufacturing to the end consumer for Forward vertical integration where the distribution is to reach the products to the people all over Bangladesh

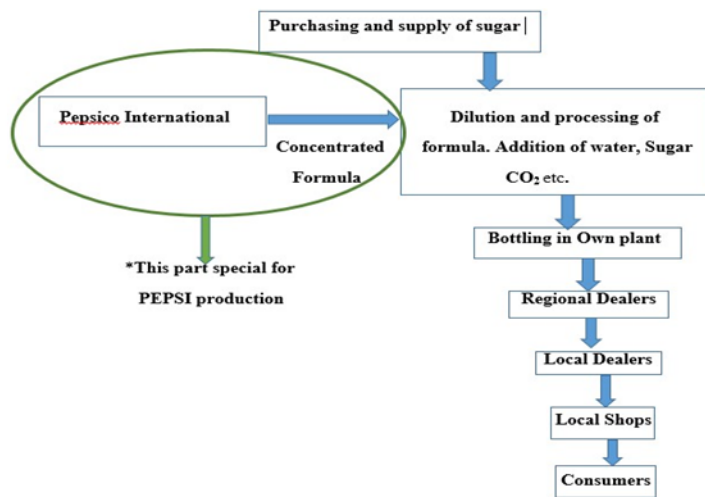


Fig 2 – Supply Chain Diagram of Pepsi



4.1 Forecasting - (Planning)

Forecast is one of the essential inputs in decision process of operation management because through this we can get data about future demand. Transcom beverages limited (TBL) actually

conduct both of qualitative and quantitative forecast approaches for their 7Up and Pepsi demand forecasting. Under qualitative approach, they use Judgmental forecast

As 7up and Pepsi is the Flagship of TBL so I focused on these two products

❖ **Judgmental forecast -**

TBL consider opinions and subjective inputs from different stakeholders. They consider sales force opinions, Consumer survey and few expert opinions about their technique feasibility.

❖ **Sales forecast opinion -**

Sales forecast opinion is all about to know about monthly sales from their sales person because they work in field. From their opinion the demand forecasting can be on point.

❖ **Consumer Survey -**

Through consumer survey brand image and popularity among consumer can be known. Can get idea about consumer consumption pattern on the basis of daily/weekly/monthly report. So forecasting is possible through the consumer report.

❖ **Expert opinion -**

Expert opinion is linked with the feasibility or standard of survey question and also about their quantitative forecasting technique. The experts have come up with their own technique to forecast about future demand.

Forecast based on available data through a method

This is mainly quantitative approach of forecasting. Based on current data, TBL follows moving average method for calculating their future demand of 7up and Pepsi.

The data's have been collected from the production manager while being on a factory visit

Moving average (12 month) method used in TBL -

Actually, TBL forecasts the demand on monthly basis based on immediate previous 12-month average. As well as they add with that 10% of that month of last year actual value as a growth rate in every month. For example – If we forecast value January (2019) demand of 7Up and Pepsi, we have to consider average of last 12-month actual value with that we have to add directly 10% of January (2018) actual value as a target growth rate. After this basic calculation adjust the figure with weather forecast which is important consideration for Transcom Beverage Limited. Now we will show about their past data

Actual(2018) - Cases												
CSD	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pepsi	215,269.00	229,704.00	345,598.00	356,211.00	260,303.00	349,215.00	373,431.00	365,561.00	379,657.00	220,549.00	140,945.00	127,811.00
7up	1,089,571.00	1,224,544.00	1,725,052.00	1,722,881.00	1,857,222.00	2,620,874.00	2,218,836.00	3,663,076.00	1,612,807.00	1,107,111.00	519,624.00	326,095.00
Forecast(2019) - Cases												
CSD	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pepsi	225500.00	247939.00	416823.00	436607.00	460050.00	256208.00	472192.00	346800.00	400671.00	240716.00	158046.00	109636.00
7up	1179030.00	1350275.00	1968014.00	2357236.00	3256153.00	1857329.00	3237059.00	3298706.00	1571801.00	914944.00	601899.00	297175.00

Table 1 - Moving Average based on recent data's

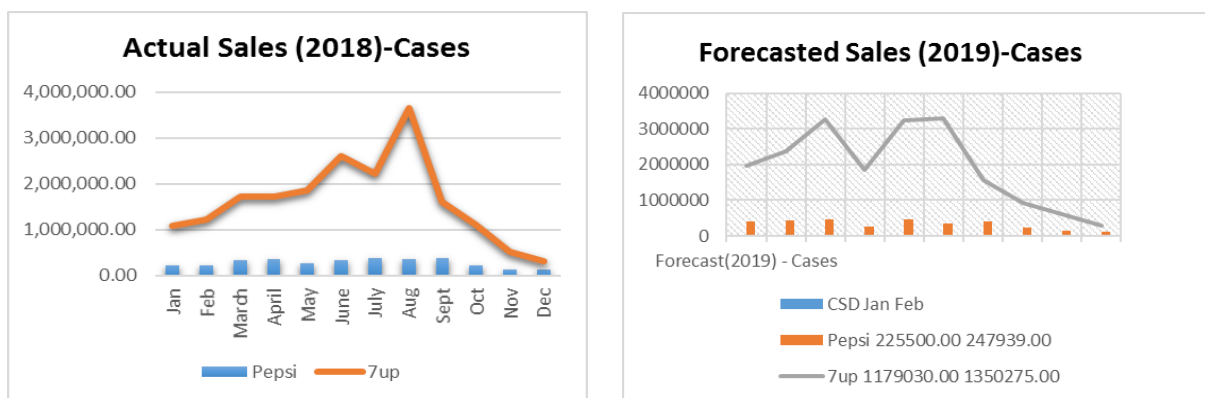


Figure 3 - Demand focus growth of 7up and Pepsi

Production Planning:

Production plan is performed by means of the Production Manager the place a comply with up of six months production is organized in 1-4 days in advance of the beginning of production as per stated plan. Production makes sure that the production plan entry in “MatPlan” and then commercial transactional deals with ROFO is done to find out the discrepancy if there is any distinction located in manufacturing graph clarify for such inconsistency between 3 plants – Dhaka, Chattogram, Bagher bazar

	Dhaka	CTG	BBP
GRB	54,629	7,895	-
PET+RGB+CAN+PMX	744,777	247,787	298,489
PET+AF	1,051,242		

From 3 plants – Dhaka, Chattogram, Bagher bazar material requirement planning

Capacity Planning:

The capacity planning of Transcom Beverages Ltd is facilitated with the aid of functionality of machines, on time effort of workers, clean consumption of power to run the manufacturing technique and inventory of raw materials to meet any unanticipated demand. The capacity management decision is enhanced by means of maintaining a safety stock of 7up and Pepsi bottles of 5 lac pieces. 10 heavy machines are needed to complete the manufacturing process that comprises ten most important steps. Transcom Beverages Ltd has four manufacturing lines. One line operating 18 hours a day is enough to meet demand or produce the preferred output. Transcom takes orders on a weekly foundation and the capability needs to be purposeful as soon as the production order is received. An ideal capacity planning is vital to decide the ability of Transcom Beverages Ltd to meet future demands for 7up and Pepsi. Accordingly, the production will be designed which will enable the organization to clutch wider consumer base. Moreover, as capacity panning influences operating costs, it is necessary that capacity decision

be matched. An appropriate forecasting allows Transcom to go for desirable ability planning which will limit operating costs. This is due to the fact carrying cost is a primary determinant of working costs. Capacity is the high determinant of initial cost. Transcom's 83% efficiency leads Transcom produce in bulk, which benefits the company in terms of low unit cost. Since potential planning includes long-term commitment of resources, an appropriate forecasting will save many costs through perfect changes of capacity decisions.

design capacity= 24×12000 cases	288000
effective capacity= 18×12000	216000
actual output	180000
Efficiency= $180000/216000$	83%
Utilization= $180000/288000$	63%

Considering 12 bottles

Capacity planning is based on the forecast of demand. First, I need to know the design and effective capacity of the production unit of Transcom Beverages Limited. On interviewing the production manager, it is known that the design capacity of the production unit is 24000 cases (288000 bottles of 7up) where the case can consist of 6, 12, or 24 bottles depending on the volume soft drinks contained in the bottle. The effective capacity of the production unit is 18000 cases (216000 bottles). The warehouse is capable of containing three lac bottles. Accordingly, I will know the demand for the finished products for the upcoming years from the forecasting unit. This will help me to design the production capacity needed to meet the forecasted demand based on the design and effective capacity so that excess production will be stored in the warehouse. The capacity planning will and not facing any shortage of products during supplying to the customer.

4.2 Operation Process: (Sourcing & Production)

Job Duties and responsibilities:

My job responsibilities during the internship phase in TBL is based on several tasks and a rigorous process to derive a final outcome, the responsibilities are as follows

- Preparing the vendor database from the vendor of 20 countries which I later compiled through excel sheet with all the credentials of the vendors across countries. The management didn't have the mindset to make one, so to make it easier I have created the database to have a vendor log view at a glance.
- Import LC opening process was handled by me stated in a picture format

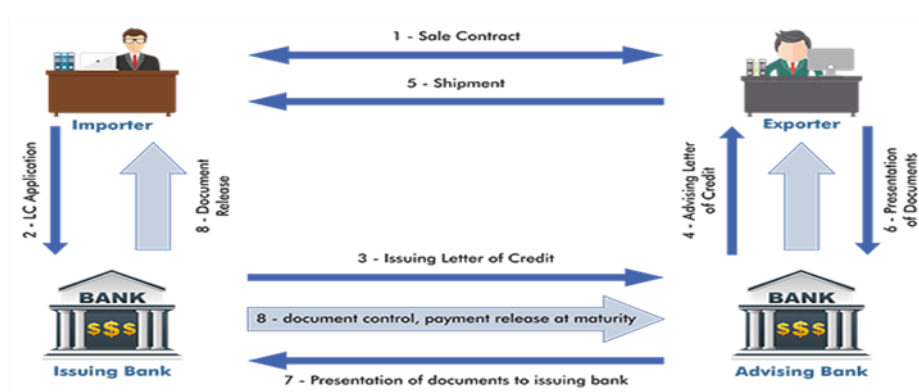


Fig 4 – LC opening Process

- According to the sales forecast in view to the sudden rise of the demand in the market the order is placed based on the stock plan if the items are running out of stock.
- Selling and buyer communicates first under the following process:
 - Seller and buyer Placing order
 - Price negotiation between them
 - Request for Proforma Invoice (PI)
 - PI checking thoroughly

- Seller (beneficiary) and buyer (applicant) agrees to on a contract to make payment on a letter of credit system
- Buyer applies to issuing bank, a bank of the buyer in his country to open a L/C in favor of the beneficiary.
- Before the LC is send to transmit in the bank the insurance pay order needs to be done
- Then the LC letter with the LC applications, LCAF, IMP form is filled up
- Issuing bank then contacts a bank of the seller’s country which is called the advising bank to advise and confirm the credit to the seller. The advising bank sends the documents of the letter of credit to the seller informing him about the terms and conditions of an L/C clauses. There are two types of LC TBL follows – Sight LC, Deferred LC, UPAS LC
- Through ACCPAC ERP entry is done which generates Purchase requisition, PO, LC information, Insurance Expense log for records

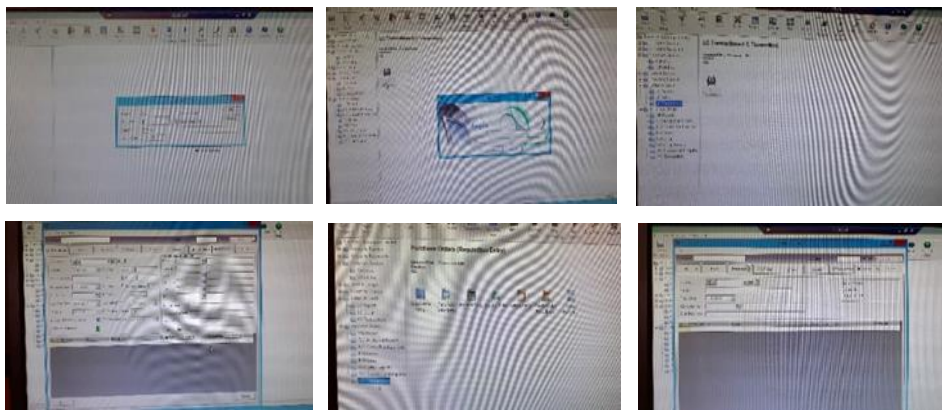


Fig 5 – ACCPAC ERP

The beneficiary of the LC examines the terms and conditions and when we agree to the terms and conditions mentioned in the documents, the beneficiary prepares the goods and documents and arranges carrier for goods. Such as packing list, Bill of lading (BL), Certificate of origin, Commercial Invoice (CI).

- After the goods have been shipped, seller provides documents proving the delivery of goods to the advising bank.
- The advising bank examines the documents gives payment and sends the documents and sends it to issuing bank for authenticating the documents that have met the terms and conditions of L/C.
- The issuing bank then dispatches payment order to the advising bank.
- Once the carrier has reached the country of the applicant. The buyer of goods shows bill of lading to the carrier of goods and claims ownership of goods leading to taking delivery of his goods.
- I was assigned to make a summary of the pending order status from week to week due to the high demand in the market of the items which will go for production which is purchased both from local and foreign and then report it to my line manager. The pending order status is taken from the 3 plants of TBL – Dhaka (Konabari), Bagherbazar, Chittagong.
- Maintaining lead status was also included in my responsibilities where the inputs are to be given from the endorsed documents from the bank where all the shipping documents, Certificate of origin, Commercial Invoice no, Vendor name then the custom agents duty tax amount, the bill of entry amount.
- C & F Bill was also reviewed by me including both the receipt and non – receipt payments.
- C & F agents log maintenance of Items being order is calculated in BDT through the conversion from other currencies.
- Maintaining monthly based report from the lead time status log

All the steps are conducted to make the raw-materials reach to the factory and start the production process.

Apart from all the responsibilities being undertaken by me. There are operational management, strategies that are interconnected with it.

Procurement with Exception:

Commercial wants to procure product right away in rise of any stunning demand due to unavoidable instances countrywide. In such case, the department are searching for requisition or ROFO with sales plan in validating such procurement. Commercial will negotiate fee and delivery. Before procurement, Commercial will affirm shipping date to the department. Quality of such product will be set up and authorized with the aid of Department

Mode of transportation – TBL uses 3 modes of transportation for import

- Ground transportation:

Ground transportation which also means land transportation means transporting commodities items by means of cars or infrastructure making use of one-of-a-kind medium such as roads or railways. Ground transport is flexible compared to air however high priced than sea specifically in developing nations like Bangladesh, where the infrastructure isn't developed like different nations

- Air transportation:

Through air transportation cargo is transported in a specialized cargo aircraft. Though the air freight charge prices more for the business enterprise but it's the fastest mode and additionally the most expensive. Cargo airways are dedicated. Some cargo airways are subsidiaries of larger passenger airlines.

- Sea transportation:

It's a sole nation's armada and the individuals that team it is alluded to as its shipper naval force. TBL utilize sea transportation when the request raised all at once Shipper conveyance is

the key to the world budgetary framework doing 90% of worldwide exchanging around the world. Ocean transport has been the most prominent supplier of cargo amid recorded history of Bangladesh a pleasantly as for TBL the put DHL is the messenger operator of TBL.

Operations Strategy and Value Addition:

Operation strategy is the holistic function of guidance with other activities in the organization in relation with its product, process, quality, cost etc. It focuses on some certain and specific capabilities of production that gives a competitive edge over other industries in the market. TBL follows some strategy, which is given, below-

Differentiation -

When TBL reaches the maturity stage with their beverage product just like Pepsi and 7up they try to change the design of packaging which lead to differentiation from other.

High quality -

TBL have quality control department. Making sure the quality testing in every phase of their production process.

Low price -

As there are little variations, TBL can produce higher amount of unit within a short time and therefore they can use their resource efficiently. Ultimately, per unit cost gets lower and as a result price is low.

Sustainable production process -

TBL organizes and manage their production process through an environmentally friendly process. They have a proper waste management plant which is the lean production system.

Value addition:

Transcom beverage limited have their own set of value addition criteria in every set of production stage. Just like, in their Haski department from the resin (crystal of plastic) they develop the preform, then the next stage in blow moulding department is to blow and make the entire bottle. After this stage, filling, drying, warming is executed by the same unit in different parts. Then, after the labeling and data coding process the shrink wrapper machine develops the whole case in this way value addition to the product is done.

4.3 Operations Performance Analysis

In order to conduct this performance analysis, line managers are interviewed to know the efficiency of the machines or the system. There are 4 systems for production at Transcom Beverages Ltd. Each system is capable of operating 18 hours a day. Each stage of the production process can process 24,0000 bottles per hour but the final stage packaging is capable of processing 18,0000 bottles per hour. This indicates that final step packaging is the bottleneck but then again overall performance is quite good. We came to know from line balancing that the production system has around 83% efficiency. This 17% inefficiency is due to the final stage of production taking more time. Another reason behind this inefficiency may be break in the middle of production. This occurs due to the interruption in the production process due to machine failure and preserving machines for 6 hours out of work creates a loss of productivity. Minimizing the bottleneck and the break up time during production will reduce idle time and in turn increase the efficiency level.

Output produced per day	Bottles
There are 10 machines each working 18 hrs. per day	240000
Total machine hours (10*18) hours	180 hours
No. of labors working per day	467
Total labor hours per day (12*467)	5604 labor hours
Energy consumed per day	550 kw hrs.
No of Labors	14000

Table 2 – Production output per day

The computation of partial measure, multi factor and total measure productivity will help to analyze the performance of the operation unit. This will reflect at which sector the firm is performing well and at which sector it should focus on improving.

Partial measure productivity	bottles per hour
Output/Machine = $240000/180$	1333
Output/Labor = $240000/5604$	43
Output/Energy = $240000/550$	436

Table 3 – Partial measure productivity

It is seen that machine productivity is the highest and labor productivity is the lowest. Proper machine maintenance and use of modern machines can be the reason for good machine productivity. Lack of motivation of labors may be the reason behind poor labor productivity. Transcom can improve labor productivity by giving workers more incentives like performance gifts, sometimes weekend tours, applauding the performance before all etc.

Multi factor productivity	bottes per hour
Output/(labor+machine) = 240000/ (2400+180)	93
Outut/(machine+energy) =240000/ (180+550)	328
Output/(labor+enegy) = 240000/ (5604+550)	39

Table 4 – Multi factor productivity

Its seen that multifactor productivity is the highest when it comes to the combination of machine and energy. When there is labor as a factor in combination with either machine or energy, the productivity falls. This also indicates that labor productivity should be improved significantly.

Total measure	Result
Output/(machine+labor+energy)	240000/6334= 38

Table 5 – Total Measure

The productivity of 38 bottles per hour is not satisfactory is too less according to the number of labors. The poor sectors should immediately be needed to improve to enhance the overall productivity of the unit.

Process selection and layout:

Transcom Beverages Limited follows continuous technique in producing 7up and Pepsi as the business enterprise produces very excessive volumes of the standardized product. 7up and Pepsi manufacturing requires highly specialized equipment. It is recommended that Transcom Beverages Ltd follow batch processing in case of both 7up and Pepsi production by using including extra flavors in 7up and Pepsi according to the sorts of products. They can then produce each flavored 7up and Pepsi batch wise.

Design of Facility layout for product:

Transcom beverage design layout is nicely designed and so that the workers are extra environment friendly to produce their product. Transcom beverage employee monitors their employee very closely and more effectively and also all everything of the manufacturing unit all worker ability and others. There is alignment of machines, departments, workstations, storage areas, and frequent areas. We discover out line balancing 6 computer first four work station has two step and last two work station has one step when they design in this work station process limit their cycle time so they are more efficient. Layout choices remarkably have an effect on the efficiency of employees in their jobs, how shortly the items can be produced, how arduous it is to automate a system, and how receptive the system can be to tweak a product or service design, product mix, and demand volume.

Flexible manufacturing system:

Transcom Beverages maintain flexibility in manufacturing system. The manufacturing system reacts in case of anticipated or unanticipated changes. The production system has routing flexibility as the manufacturing of 7up and Pepsi is required to use multiple machines to perform the equal operation on a part, the machine has the capacity to make and interact in large-scale adjustments such as in volume, capacity, or functionality

Production Layout for product:

7up and Pepsi has its self-owned line planned to meet its prerequisites. The stream of work is on arrange and along these lines passing from one workstation to another consecutively down the get together line till it comes about to a wrapped-up item at the conclusion of line. Here, the line is set up for one type of product or service but there are machines to calibrate a product's specific processing requirements individually. Product layouts are suitable for mass production of 7up and Pepsi in which demand is stable and remain at peak at times and volume is high.

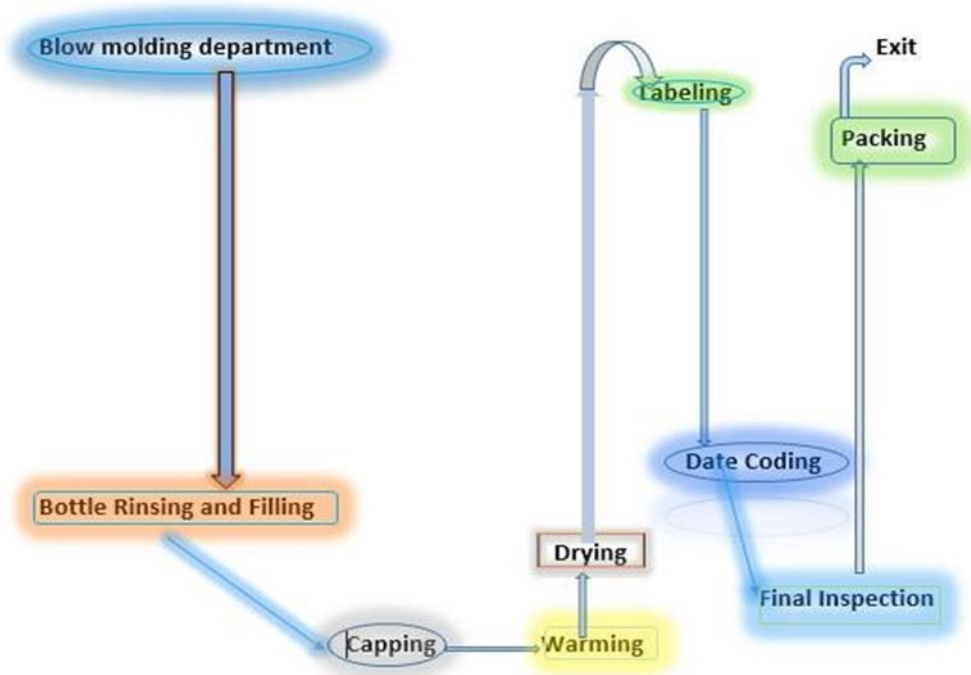


Fig 6 - Layout of 7up and Pepsi production of Transcom Beverages Limited

Cyclical order of 7up and Pepsi production



Fig 7 – Cyclical order of 7up and Pepsi

1) Blow molding -

It is a manufacturing procedure by means of which the hollow plastic parts are formed through this material glass bottles can additionally be formed. Blow molding are of three types they are extrusion blow molding, injection blow molding, and injection stretch blow molding.

2) Bottle rinsing -

It is important for cleaning by flushing with liquid (such as water), to cleanse (as of soap) by clear water, to remove (dirt or impurities) by washing lightly or in water only.

3) Filling -

A range of volumetric electronic fillers that meet stringent clean environment requirements. The beverages are filled with acid, with and without pulps, fibers, pieces, still and carbonated in a 4-degree frizzing temperature.

4) Capping -

Capping is completed to seals the top opening of a bottle. A cap is colorfully decorated with the brand of the beverage. Plastic caps are used for plastic bottles which is referred to as closure and for glass bottle it's called crown.

5) Warming -

When capping is completed than warming the full bottle for 35-degree high temperature and within the duration of one-hour assembly line produce 180000 bottles for warming.

6) Bottle drying -

Bottle-drying frameworks helps to come over the surface drying issues on a huge scale of broadened materials over a run of generation speeds. The accessible frameworks run from a air knife and blower set-up for entry-level lines, to a completely encased and flexible knife and board framework for high-speed bottle drying.

7) Labeling -

When bottle drying complete than another assembly line starts for labeling. In one hour, assembly line completes their labeling 120000 bottle at a time. When labeling complete than data coding through laser produce 240000 bottles in one hour.

8) Date Coding -

Laser coders is accommodating for following the data coding that are regularly a profitable way to print recognizing records on beverage packaging. Such as Logos, records framework, barcodes, serial and section numbers.

9) Packing -

This is the last stage for the complete working procedure of 7up and Pepsi production. At a time, this machine packet of 24 pieces bottle.

Transcom Beverages Ltd needs to take necessary steps to improve the productivity of the last step that is packaging. The shrink wrapper machine can pack 180000 bottles per hour whereas machines involved in the previous stage can process up to 240000 bottles per hour. So, packaging in the later stage of production creates bottleneck.

4.4 Supply Chain Execution process

Inventory management:

Warehouse and storage:

There are two kinds of warehouse/Inventory in this organization. They are:

- Raw material warehouse.
- Finished product warehouse.

There is only one storage in this organization. That is:

➤ Technical store.

There are many types of inventories like, raw materials, processed goods, finished goods and also machineries parts. Transcom beverages also have their own inventories and make all the processes from their own company. They have raw material inventories, process inventories, and machineries inventories and finished goods inventories. These inventories are given below.

❖ Raw-material Warehouse:

- Raw materials for the beverage

- a) Water

- b) Sugar

- c) Carbon Dioxide plant

- Raw material for the bottle

- a) Plastic

- b) Ink

- c) Polythene

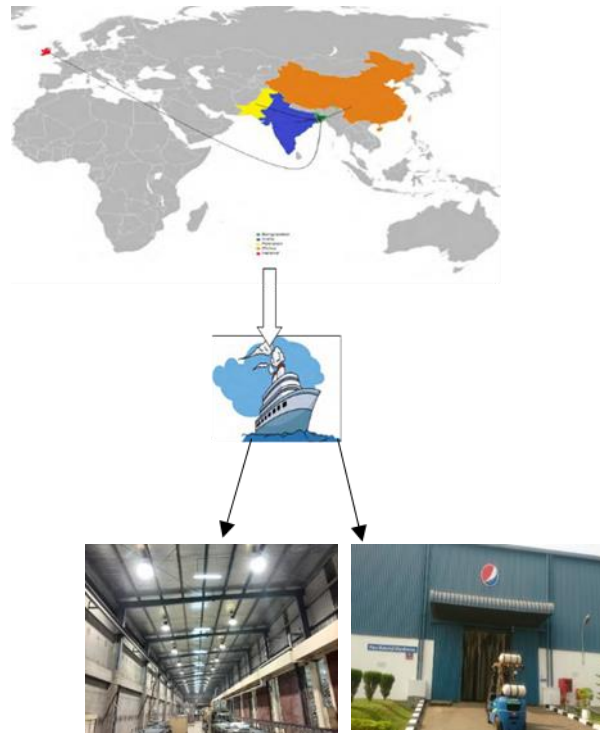
There is distinct warehouse for raw materials, as mentioned earlier. Materials are stored there.

Types of form in racking -

- ✚ Fixed bed racking: This sort of racking is built of a solid outline as a rule made of steel with racking of the same material.

- ✚ Drive-in and drive-through racking: There are pallet-based racking frameworks that permit a simple get to for forklift trucks to lift goods.

- High-rack and narrow-aisle racking: It's designed to maximize space, utilizing the complete stature of the stockroom with passageways put as near as conceivable to each other to permit get to by either physically driven or computer-controlled forklifts.



Chittagong Factory

Dhaka Factory

Figure 8- Importing raw materials.

Transcom uses their own water treatment plant to collect water because they want a fresh hygienic distribution. They also produce CO₂ in their own factory and they test them in their own testing plant. Raw materials are imported from international locations like Thailand, India, Pakistan, Malaysia, China etc. through water modes and air. Containers attain Chattogram sea port. From there raw materials are distributed to Chattogram and Dhaka plant.

❖ Finished product warehouse:

All beverages that are stored for future demands. They have the ability to store large cases in their factory. After production from the raw-material the ultimate product is being stored in the warehouse. There are separate sections for separate products. For Aquafina drinking water its one-of-a-kind here the products want to settle down for 24 hours before they are prepared for use or distribution. The products that are not ready for use or distribution yet, are given a red tag mark. From the warehouse the products are carried through truck and disbursed all through distinct regions of the country.

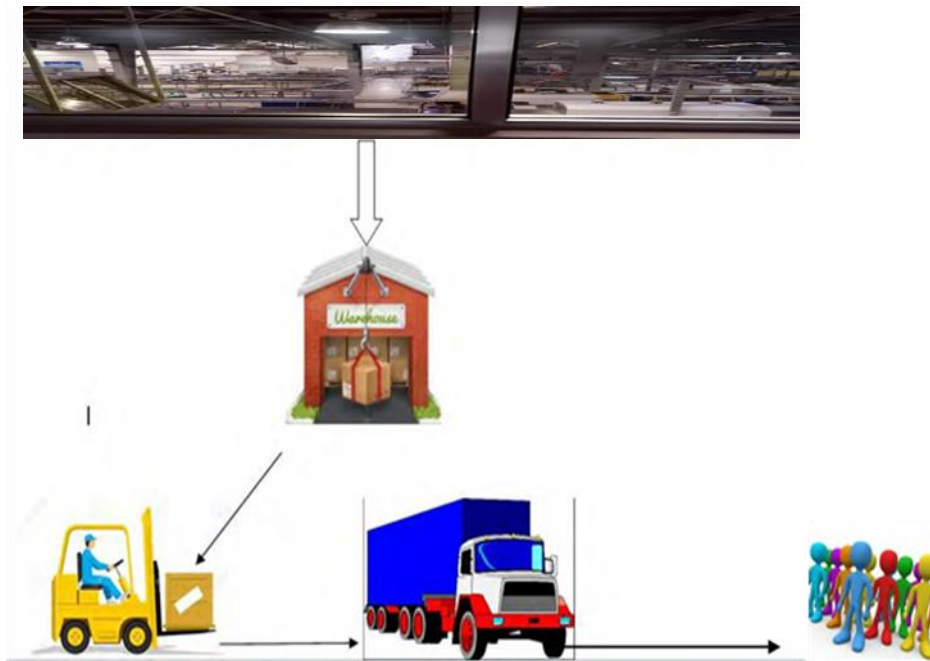


Figure 9 - Finished product warehouse

❖ **Technical Store:**

All the specialized things that are kept in specialized store are save parts of machineries, oil, Mobil, oil etc. which are all from Neighborhood and outside. The remote things are imported from diverse nations basically through air-ways and at times by water-ways.

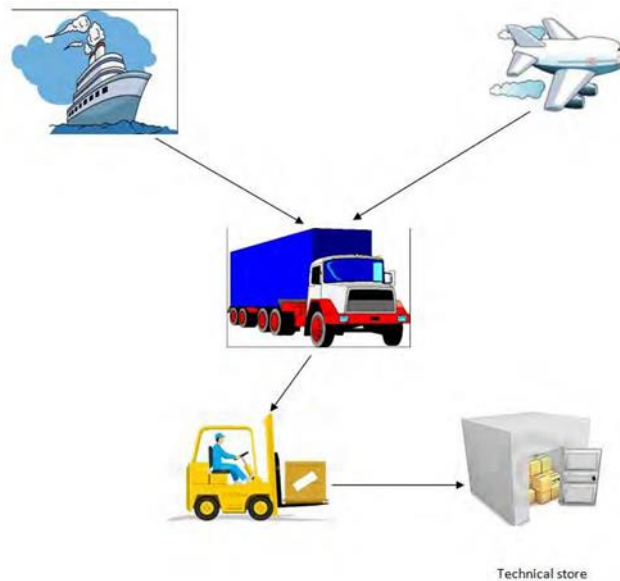


Figure 10 - Acquiring technical materials

The organization takes steps to play down stock misfortunes stemming from burglary and decay by” cycle tallying. “In this strategy, they physically tally a parcel of stock each and every day until they survey the full part and after that begin over once more. The quicker they develop they get cautious around issues the they can take remedial activity and reducing the cost.

Inventory counting system:

TBL maintains their count of raw materials inventory on monthly basis. Where they follow two methods one is the perpetual method and the other is periodic. The perpetual method for raw material inventory counting means to keep record of the amount of outgoing and incoming of the inventory and beside that Transcom suggested to use periodic inventory counting system to count finished goods inventory. Transcom also uses the bar-coding method when it comes

to sale of 7up and Pepsi. Through this Inventory counting system TBL manages the entire inventory in a structured way.

Safety stock:

Transcom Beverages Limited always maintains a safety stock of 49,000 cases of 7up and 55,000 cases of Pepsi of 1 Ltr which is 12 bottles. There are no certain calculations of maintaining EOQ and stock counting formulation all on the basis on demand

Quality Control and Management:

TBL ensures the highest standards needs to be maintained in their production process and other activities also. Since TBL believes in “continuous improvements” so they work on it in all the areas of their organization during production.

Quality control:

Transcom Beverages Ltd. has an entire separated quality control unit to inspect all the products after production. They have their own chemist to do all the chemical testing and check the quality and a quality control head officer who manages, controls all the employees under this unit. Quality control head officer manages the whole process in this unit.

Quality Management

In TBL there are workers to keep the production department clean properly by killing all the insects inside the area. There is a policy in TBL which is if a single insect is found inside the factory a certain percentage will be deducted from their salaries due to the fear of losing the salary portion all the workers work sincerely and carefully to make sure there are no bugs in the warehouse and production department

4.5 Distribution

After the production, they use a warehouse with ideal temperature to save the completed products. They concern about the volume of the storage because high storage increases their maintenance fee and low storage motives loss of customer. Transcom use their personal transportation to provider their products. They at first provide their products to the complete seller, and then the complete seller provide merchandise to retailer and at last stage retailer provide the soft drinks to the ultimate consumers. Transcom follows centralized device when buying raw materials. The Departments branch does no longer have freedom to make its own purchase. Every branch has to contact with Procurement branch and the Procurement Department makes the purchase for all the departments. Transcom has lead-time of a week in case of ordering and receiving resins, the major raw material of preform.

4.6 Relationship between supply chain management and ERP

There is a close relationship with supply chain management and ERP. In a large company like Transcom Beverages Ltd there are a lot of information's needed to run its production, raw material collection and distribution process. To ease the knowing of information ERP is effective because all the information regarding LC's, Purchase order, keeping accounts of stock of raw-materials and distribution log maintenance all are brought together in one place so that the user can get to know the status easily in an organized form.

Chapter 5 -

Challenges and solution of TBL to overcome

Tracking system:

The ability to track the raw-materials through all stages of the supply chain is one of the imperatives to the supply chain department. But TBL lacks the tracking system and transparency where due to the absence of this in supply chain it exposes to unnecessary risk. Several risks occur like damage risk and the risk of the materials getting lost which leads into lower sales and profits. Keeping a record of shipment of raw-material is necessary and the location of it.

Solution – To develop a software like other beverages industry operating in abroad which is Deliveries one of the most popular shipment tracking apps available in the market. The most highlighted features to make the whole process easy for its users. The main portal consists of a list which shows all the shipments that have been made and to set a countdown of the days left for the packages of raw-materials and machineries to be delivered.

It's the GPS tracking system which shows where in the map is the package currently being handled and integrate it with the official web page of the shipping company with TBL's homepage a link to access technology in order to know the location of raw-materials when it's in the importing process.

Standard operating procedure (SOP):

There is no SOP's in TBL. SOP is one of the important factors TBL should consider. There are no specific guidelines in TBL to follow, no gradual instructions by an organization to help workers carry out complex routine operations. No structure of work due to the stress of work pressure.

Solution - SOP's ought to be kept up where working work informational are productive for standardization of work between hourly partners, shifts. Each level of works has a few specific characteristics that will require fine-tuning of corporate determined SOPs, indeed on the off chance that utilizing the same fabricating hardware. SOPs are as a rule kept up to guarantee that administration clearly knows what they need done and how to do it. Specialists productivity and efficiency can be accomplished through methods.

🚧 Rising supply chain costs:

Running supply chain costs comes with many costs, some of the more important ones include:

- ❖ Less Space Utilization
- ❖ Sole Supplier
- ❖ Warehouse IT

Solution - To control costs is to know your costs. So, conducting an investigation of the distribution center to extend the capacity space by FEFO strategy which is the primary expiry and to begin with out, proficient capacity technique can less the amount of space and the sum of time it takes to discover and drag things. This comes about in a decreased lease and finance costs. A few suppliers' alternative ought to be kept open by competing on cost to get the product beforehand without delay. Numerous provider relationship opportunity may be a must require thing for each organization, in the event that one provider incorporates an issue at that point another may give us with the necessities we need. By the utilization of RFID innovation for stock following a computer program is designed specifically for distribution centers with multi-level choice creators which decreases IT consumptions and offer assistance to construct a productive distribution center trade. The innovation stockroom contains a surprising impact on yearly benefits and misfortunes.

✚ Not maintaining the safety and quality of products:

Through quality raw-materials the manufacturers need to produce and distribute high-quality products. In order to maintain the quality there are some challenges that affect the quality and safety of food products which includes:

- ❖ Poor Packaging
- ❖ Delays in transportation

Solution - Proper selection of importing best raw materials and implementing the right production method. Packaging plays an imperative role in right packaging materials that ensures the validation and safety of products.

Transit time is one of the foremost vital variables in coordination's as products to be conveyed at their desired goal at the correct time. The whole time taken from choose up to conveyance of goods hence has critical effect on the quality of the item it spoils/damages the item that's caused due to the delay in transportation

✚ Risk Management:

There are challenge that effects the supply chain efficiency is the constant fluctuation in the market, such as consumer demands, political agendas and Govt rules and regulation such as Tariff Value, Custom Duty and Regulatory Duty, Supplementary duty and are a major impediment in operations and stock out risks as well

Solution - To prepare a risk management plan which can be overcome by hiring a logistics software development company you would be able to manage these issues effectively with less effort. Trying to keep the Tariff Value, Custom Duty and Regulatory duty as much less as we can by good communication with NBR (National Board of Revenue). To minimize the stock out risk, buffer stock needs to be made in link with the over demand in the market.

✚ Unexpected Delays:

Procurement of materials may additionally be convenient but the transport may not be always 100% on time due to unavoidable instances when there is a time difference in delivery time frames. When objects are procured from distinctive countries so delays are very common.

Solution - Through an efficient warehouse management system buffer stocks ought to be kept. Keeping a track of stocks can help to know when certain materials are delivered as well as to formulate a time cushion in terms of shipping to ensure that the whole thing is seamless.

✚ Lead Time:

Lead Time is another important challenge which creates a progressive production in the industry. Larger lead time creates time consumption and delay the production which also delays in dispatching the products to the market

Solution - To create a lean supply chain with minimum lead time. Every supply Chain system has a value stream map to comprehend the drivers of lead time in order to design a future state map to minimize the lead time. Through this supply chain value stream mapping an action plan is established that clears accountabilities and timelines to deliver the improvements and reduce carrying costs.

5.1 TBL’s contribution to economy

Nowadays in Bangladesh there is a rise in the demand of Beverage in the economy which is showing a great potential to a wide range of young population which has reflected to a huge economic growth in the last 10 years. Though there is a huge economy growth but due to some certain regulation the consumption of CSD is strict where as in other developed countries its relaxed. On the basis of this CSD manufacturers need some policy support to utilize the opportunity and achieve exponential growth by the statement of Khurshid Irfan Chowdhury – MD & CEO of PepsiCo. Coming to Tax the CSD Manufacturers like PepsiCo in Bangladesh are imposed with a massive 43.75 percent value-added tax and supplementary duty which is less in other saarc countries. TBL’s contribution to the economy will be robust if the government lowers the existing 25 percent supplementary duty on the CSD which was 15 percent four to five a long time prior and agreeing to the insights it’s too said that A lion's share of the settlement beneficiaries and families of piece of clothing laborers live in provincial regions, where delicate drinks utilization is quickly expanding. This CSD is 7-8 % every year within the final five a long time though Transcom Beverages has developed over 18 times since it begins from 2000. The industry as a rule develops beside the economy, which is obvious from yearly per capita utilization of delicate drinks in created nations: it is 450 bottles in Germany, 550 within the US and 600 in Mexico but exclusively 17 in Bangladesh.

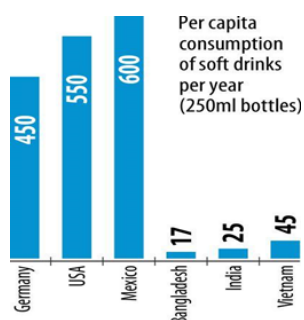


Fig 11- Per capita consumption

Because of the Tax and the other regulators’, the consumption statistics is in a declining state in Bangladesh.

Chapter 6 – Findings and Analysis

A structured/Format is formed to find out the outcome of topic through survey. The survey is taken from 20 respondents. Respondents belong from different culture and academic background which is being portrayed through MS-Excel based on the opinion to the questions. The Analysis and Findings are discussed below.

Part 1 - Demographic Data

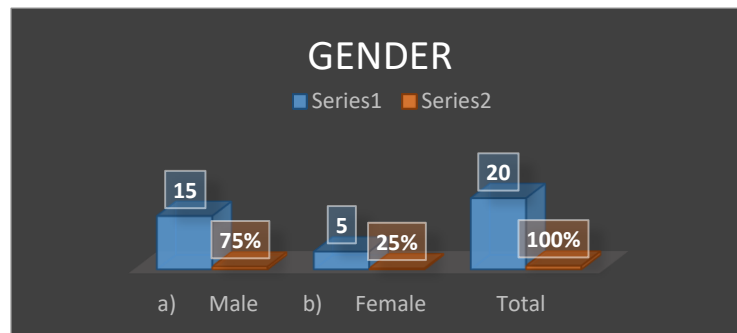


Fig 1 –Gender

According to the finding being illustrated in the graph shows that in TBL 75% of majority are male with 15 no of respondents and 25% are female with 5 no of respondents.

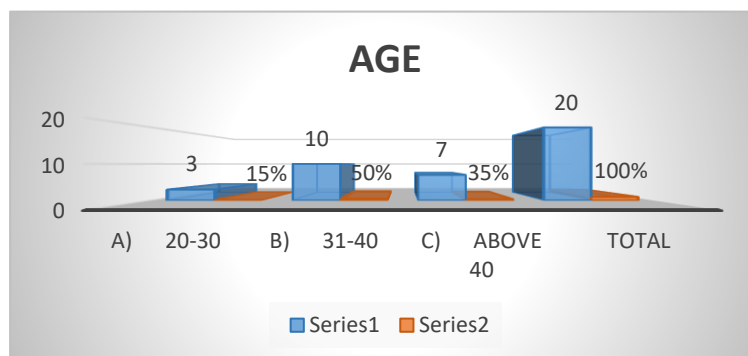


Fig 2 - Age of respondents

According to the finding being illustrated in the graph shows that in TBL 50% majority of employees are within the age of 31-40 with 10 no of respondents and 15% of the employees age are within 20-30 with 3 no of respondents.

Part 2 - Supply Chain Management Process & Practices

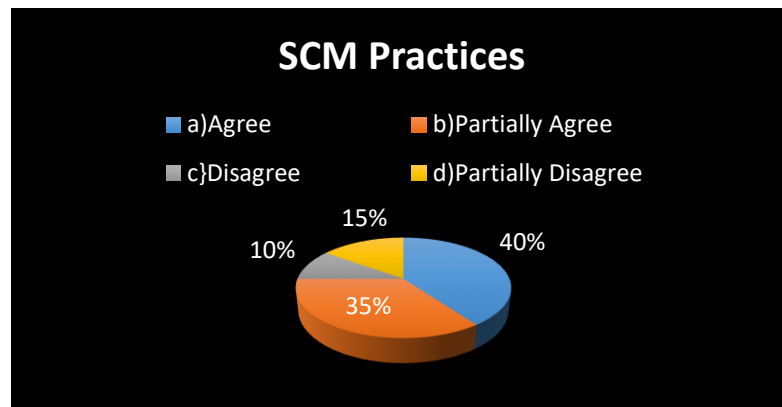


Fig 1 - SCM Practices

According to the finding being illustrated in the graph shows that SCM practices is agreed in TBL by majority of the respondents where the proportion between Agree and Disagree is 40 to 10 % where 40 % respondents agree with 8 no of respondents and 10% respondents disagree with 2 nos of respondents. It's clearly evident that SCM has wide practice throughout the organization as a result there is a nice sequence of follow-up in every phase of work

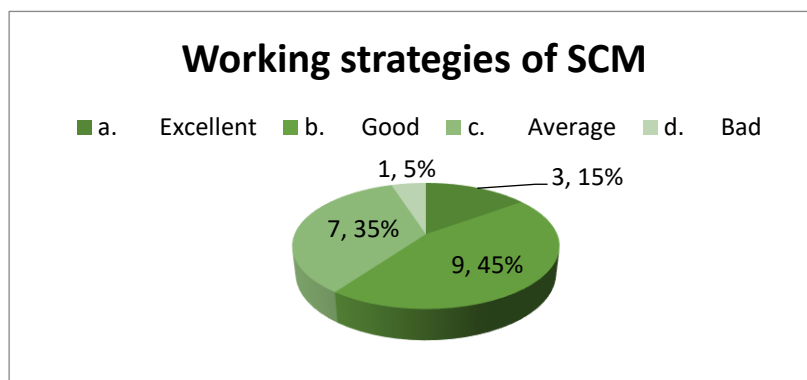


Fig 2 - Working strategies of SCM

According to the finding being illustrated in the graph shows that the working strategies of SCM is good in TBL analyzed by majority of the respondents where the proportion between Good and Bad is 45 to 5 % where 45 % respondents said Good with 9 no of respondents and 10% respondents said no with 1 no of respondents. It's clearly evident that working strategies

of SCM is wellly maintained throughout the organization as a result there is not much of trouble in executing them.

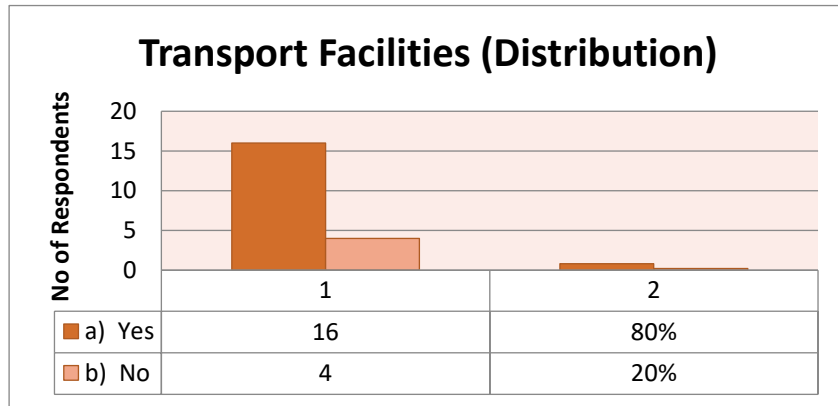


Fig 3 - Transport Facilities

According to the finding being illustrated in the graph shows that the Transport facilities is sufficient in TBL analyzed by majority of the respondents where the proportion between Yes and No is 80 to 20 % where 80 % respondents said Yes with 16 no of respondents and 20% respondents said no with 4 no of respondents out of 20 . It's clearly evident that the transport facilities are managed properly throughout the organization.

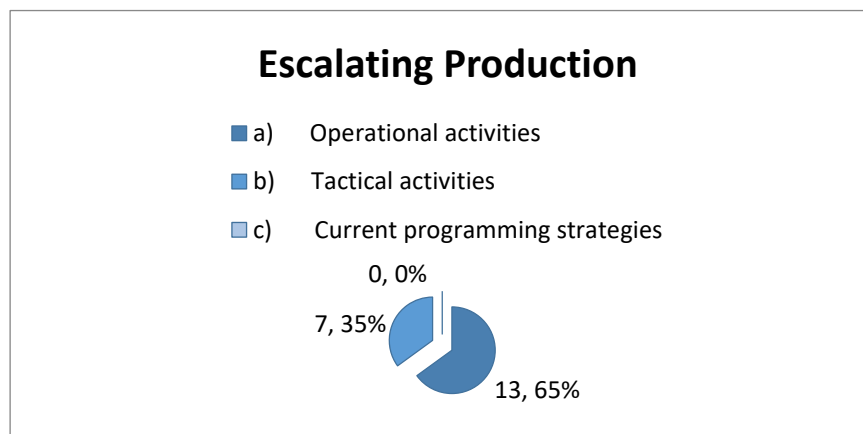


Fig 4 - Escalating Production

According to the finding being illustrated in the graph shows that the production is escalated more in operational activities where 13 respondents of 65 % marked in proportion to 7 respondents of 35% said tactical activities out of 20 respondents. It's clearly evident that the

boost in production is possible through a systematic operational activity in achieving maximum efficiency for the organization.

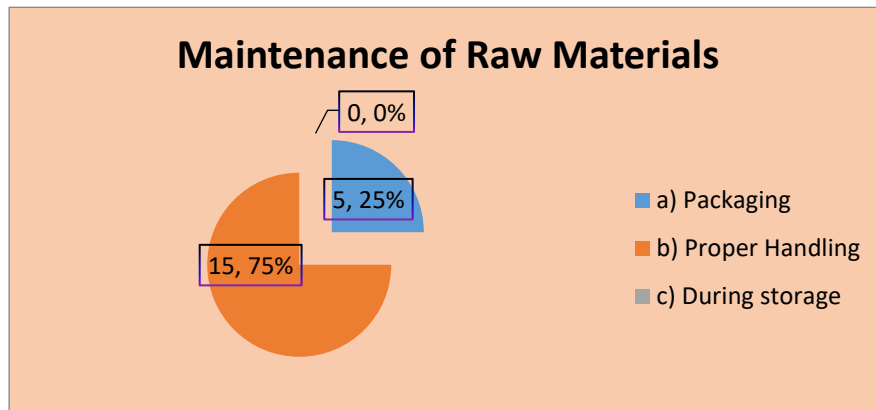


Fig 5 - Maintenance of Raw-Materials

According to the finding being illustrated in the graph shows that the proper maintenance of Raw Materials is done through proper handling being said by 15 respondents which is of 75% more in proportion to 5 respondents of 25% said due to poor packaging. It's clearly evident that a proper maintenance of raw-material can be done through a Proper handling that can help the company to save the cost of product being damaged

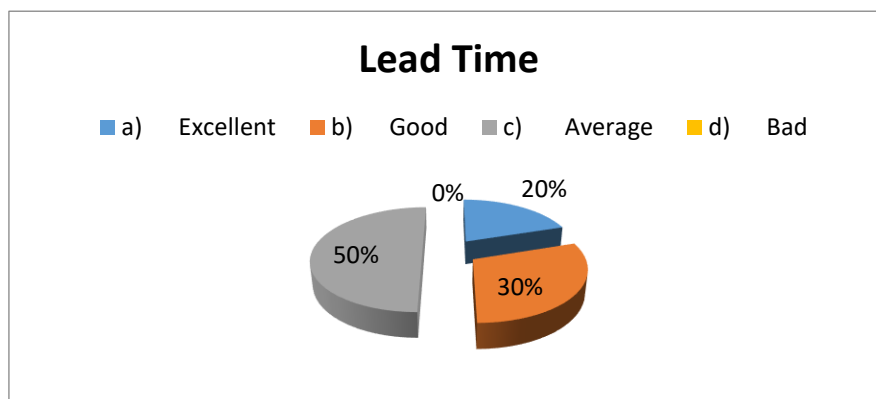


Fig 6 - Lead Time

According to the finding being illustrated in the graph shows that the Lead time is important to commence a production said by respondents where the proportion between Average and excellent is to 50 % to 20 % where 50 % respondents said Average with 10 no of respondents

and 20% respondents said excellent with 4 nos of respondents. It's clearly evident as per respondent's viewpoint which is average as they think if the lead time is reduced the production can start faster. So faster Lead time is essential for lower carrying cost.

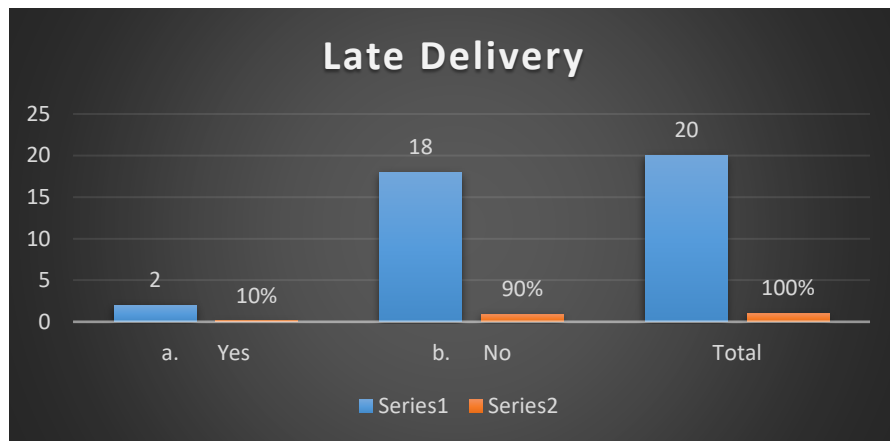


Fig 7 - Late Delivery

According to the finding being illustrated in the graph shows that late delivery is a major concern for TBL analyzed by majority of the respondents where the proportion between Yes and No is 10 to 90 % where 10 % respondents said Yes with only 2 nos of respondents and 90% respondents said no with 18 no of respondents out of 20It's clearly evident that TBL doesn't face any late delivery all of the consignments come on time.

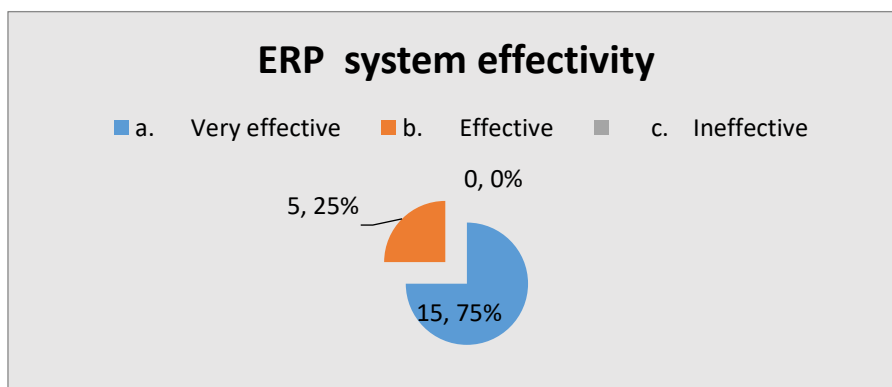


Fig 8 - ERP system effectivity

According to the finding being illustrated in the graph shows the effectivity of ERP in TBL being analyzed by majority of the respondents where the proportion between Very effective

and effective is 75 to 25 % where 75 % respondents said very effective with 15 no of respondents and 25% respondents said effective with 5 nos of respondents. It's clearly evident that SCM has a great interconnected communication with the ERP of TBL for keeping work logs and orders

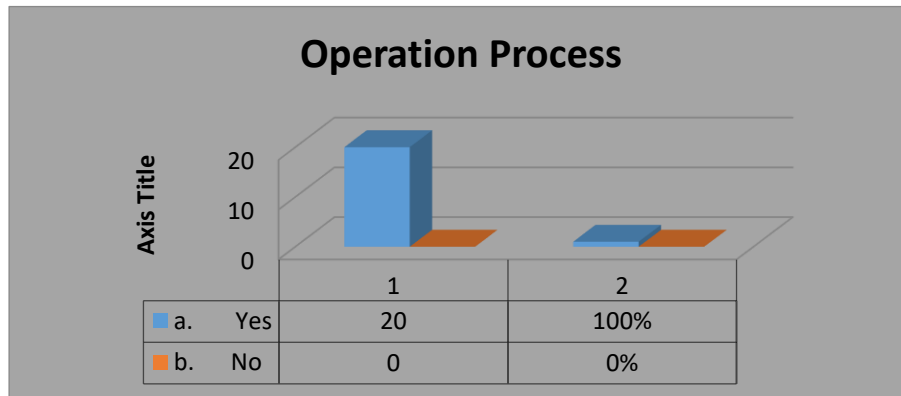


Fig 9 - Operation Process

According to the finding being illustrated in the graph shows how rigorous the operation process is in TBL that's analyzed by majority of the respondents where the proportion between Yes and No is 100 to 0 % where 100 % respondents said Yes with 20 no of respondents and 0% respondents said no with 0 no of respondents out of 20. It's clearly evident that TBL's operation process is tedious and extensive to carry on as everyone agreed.

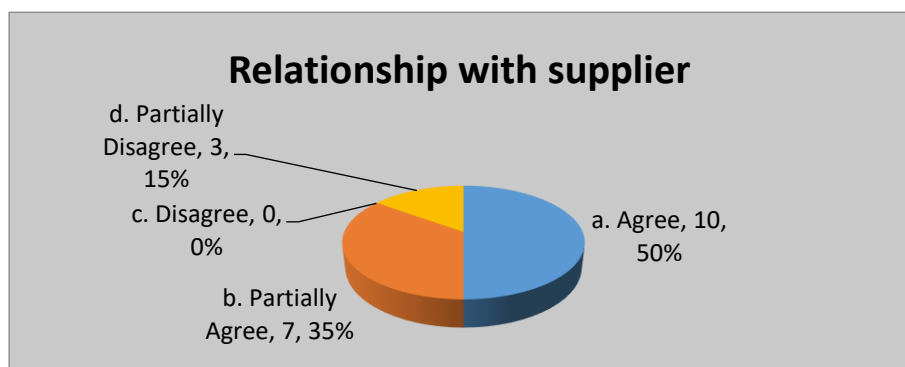


Fig 10 - Relationship with supplier

According to the finding being illustrated in the graph shows the relationship with the supplier where the proportion between Agree and Partially Disagree is 50 to 15 % where 50 %

respondents agree with 10 no of respondents and 15% respondents Partially disagree with 3 no of respondents. It's clearly evident that TBL has a good terms and relationship with the suppliers for imports.

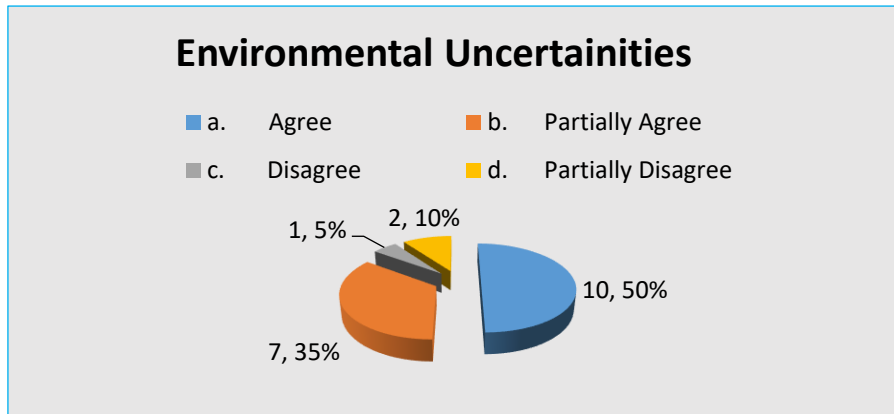


Fig 11 - Environmental Uncertainties

According to the finding being illustrated in the graph shows the impact of Environmental uncertainties where the proportion between Agree and Disagree is 50 to 5 % where 50 % respondents agree with 10 no of respondents and 55% respondents disagree with 1 no of respondents. It's clearly evident that Environmental uncertainties has a negative impact on the business and might turn to a loss for delays.

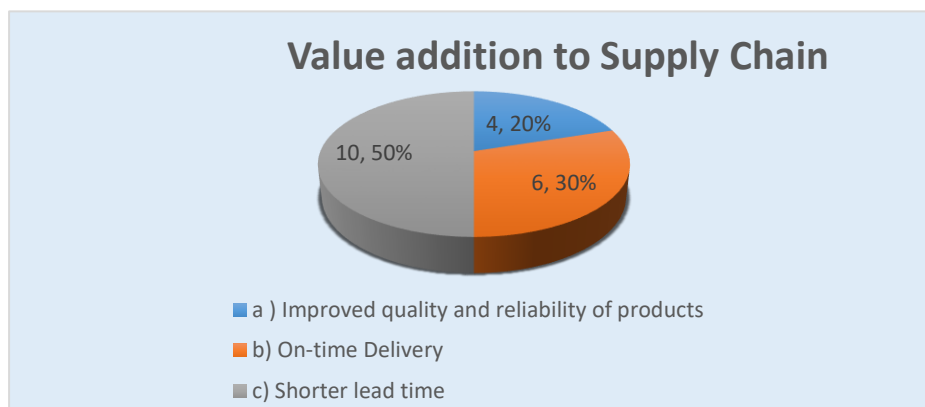


Fig 12 - Value Addition to Supply Chain

According to the finding being illustrated in the graph shows value addition to supply chain where the proportion between Shorter Lead time and on-time Delivery is 50 to 20 % where 50

% respondents said Shorter lead time with 10 no of respondents and 20% respondents with 6 no of respondents said improved quality and reliability of products. It's clearly evident that shorter lead time is the imperative factor to be considered as a value addition to supply chain

Chapter 7 – Recommendations

Based on the findings of the study the following suggestions are put forward to improve the supply chain efficiency

- Conducting legitimate preparing on supply chain administration, IT and Leadership in TBL its recognizable that there's need of preparing on SCM, IT and authority. The IT engineers confronted troublesome times in calibrating specialized issues to solve.
- Correct HS code placement based on items according the national board of revenue
- Setting harbor charge and demurrage charge at a least percent for taken a toll sparing
- Reduction of raw-material price compared to competitors both in national and international market
- Reducing the time between the Safety stock and Re-order level (ROL) for providing good customer service
- Company should focus more on online order processing with the use and implementation of apps or other technology.
- Applying just in time manufacturing system and determine EOQ that will help to manage inventory more efficiently and reduce stock holding cost.

Chapter 8 – Conclusion

Supply chain management is considered to be an inseparable part of any organizations backbone to gain competitive advantage. Proper optimization in supply chain management can decrease the total inventory cost while there creates an availability of stock. if the cost can be controlled then the company can be benefited with larger profits. So, concluding in this way from the overall supply chain management practice we get to know that Transcom Beverages Limited maintains an efficiency level of 83%, which we got here to understand from line balancing. The utilization is solely 63%. The interruption all through manufacturing process and preserving machines 6 hours out of work creates a loss of productivity. Moreover, Transcom typically does not activate all the production line simultaneously. Activating a couple of production lines simultaneously will decorate productivity significantly. Transcom must conceive an automated technique of inspection amidst manufacturing system which will additionally save the manufacturing time. On the different hand, Transcom has its own water treatment, carbon dioxide and carbon dioxide checking out plant which leads to a vast discount in cost. Moreover, the effectivity of supply chain limits lead time, ordering cost, and carrying cost and performs a critical role in the back of the success of Transcom Beverages Ltd as a leading supplier of carbonated soft drinks product all over Bangladesh.

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Appendix

Survey Questionnaire

Dear Respondent,

I am Meer Mustafa Nayeem student of BRAC University (MBA, Brac Business School). I am writing a report on the topic of "The Supply Chain Management Process and to overcome its challenges: A Study on Transcom Beverages Limited". This survey is done to solicit information that would help me to construct my internship report. I would be very kind if you spare few minutes and answer the questionnaire

Thank you for your time, effort and support for fulfilling my research

Part 1

Demographic Data

Q1. What is your gender?

- a) Male
- b) Female

Q2. What is your age?

- a) 20-30
- b) 31-40

c) Above 40

Part 2

Supply Chain Management Practices

Q1: Is your company successful in maintaining the Supply Chain Management Practices?

- a) Agree
- b) Partially Agree
- c) Disagree
- d) Partially Disagree

Q2: Evaluate the working strategies of supply chain management department on the basis of the current consignments?

- a) Excellent
- b) Good
- c) Average
- d) Bad

Q3: Does the supply chain management department have sufficient transportation for distribution?

- a) Yes
- b) No

Q4: According to the present growth process of the organization, which of the following needs much awareness and development to elevate production?

- a) Operational activities
- b) Tactical activities
- c) Current programming strategies

Q5: Which activity in supply chain department is facing difficulty in taking care/maintenance of the raw materials?

- a) Packaging
- b) Proper handling
- c) During Storage

Q6: Is the lead time enough to start the production on time?

- a) Excellent
- b) Good
- c) Average
- d) Bad

Q7: Is there any case recorded by the supply chain department in which the production department complained late delivery of raw materials?

- a) Yes
- b) No

Q8. Is the ERP system effective for organizations benefit?

- a) Very effective
- b) Effective
- c) Ineffective

Q9. Is the company's operation process tedious?

- a) Yes
- b) No

Q10. According to your opinion do you think that your company is having a very good Supply Chain relationship with your suppliers?

- a) Agree
- b) Partially Agree
- c) Disagree
- d) Partially Disagree

Q11. According to your opinion do you think that your company under Environmental Uncertainties will affect its Supply Chain Management Practices?

- a) Agree
- b) Partially Agree
- c) Disagree
- d) Partially Disagree

Q12. According to your opinion which of the following identified value attribute is effective for supply chain?

- a) Improved quality and reliability of product
- b) On-time Delivery
- c) Shorter lead time