Internship Report

on

An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd.

Supervised by:

Professor Dr. Mohammed Masum Iqbal
Department of Business Administration
Faculty of Business & Entrepreneurship
Daffodil International University

Prepared by:

Srabonti Rani Das
ID: 241-14-007
Program: MBA
Major in Supply Chain Management
Department of Business Administration
Faculty of Business & Entrepreneurship
Daffodil International University

Date of Submission: 20 October, 2025

Letter of Transmittal

Date: 20 October, 2025

Professor Dr. Mohammed Masum Iqbal

Department of Business Administration

Faculty of Business & Entrepreneurship

Daffodil International University

Subject: Submission of Internship Report on "An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd."

Dear Sir,

I am pleased to submit my internship report titled **"An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd."** which forms a key component of my MBA program.

In preparing this report, I have diligently reviewed relevant documents, materials, and records, observed operations, and collected primary data to gain insights into customer perspectives on digital marketing. I have made every effort to ensure the report is comprehensive and informative.

Please feel free to reach out if you require any further clarification or additional information.

Thank you for your consideration.

Sincerely,

……..

Srabonti Rani Das

ID No: 241-14-007

Program: MBA

Major in Supply Chain Management

Department of Business Administration

Faculty of Business and Entrepreneurship

Daffodil International University

Declaration

I, Srabonti Rani Das hereby solemnly declare that the report titled **"An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd."** which I have prepared, is a partial fulfillment of the requirements for the Master of Business Administration degree at Daffodil International University.

This report is my original work and does not infringe on any existing copyrights. No part of this report has been copied from any previous work for a degree or otherwise.

I believe this report reflects a genuine and honest analysis, and I hope it will positively reflect on my efforts. Should you require any further explanations or clarifications, I would be happy to provide them. I would appreciate your favorable consideration of this work.

……..

Srabonti Rani Das

ID No: 241-14-007

Program: MBA

Major in Supply Chain Management

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Daffodil International University

Letter of Acceptance

This is to certify that the internship report entitled **"An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd."** is prepared by Srabonti Rani Das, ID: 241-14-007, as a requirement of the MBA Program under the Department of Business Administration and The Faculty of Business and Entrepreneurship at Daffodil International University.

The report is recommended for submission.

……

Professor Dr. Mohammed Masum Iqbal
Department of Business Administration
Faculty of Business and Entrepreneurship
Daffodil International University

Acknowledgement

First and foremost, I would like to thank Almighty Allah for his grace and support in completing my internship report on time. This report focuses on Liwayway Food Bangladesh Company Ltd., specifically studying the company's supply chain management activities.

My gratitude goes to the concerned divisions of the “on Liwayway Food Bangladesh Company Ltd.” team. Their involvement helped me to gain experience and understanding of the organizational strategies which assisted me greatly in this coursework.

I also extend my sincere gratitude to my honorable supervisor, Professor Dr. Mohammed Masum Iqbal, Department of Business Administration, Faculty of Business & Entrepreneurship, Daffodil International University. Without his expert guidance and assistance, this report would not have been possible.

Finally, I wish to express my heartfelt thanks to my university for providing access to the library, laboratory facilities, and the knowledge imparted by my teachers. Their support was crucial in helping me complete this report.

Executive Summary

Liwayway Food Bangladesh Company Ltd., a subsidiary of the global Liwayway Group, operates in the fast-growing Bangladeshi snack food market under the brand name Oishi. Its supply chain management (SCM) system revolves around local manufacturing, strategic sourcing, and distribution to meet the high demand for processed snack foods. The company benefits from having a local production facility in Gazipur, which enhances control over quality, cost, and lead time. Raw materials are sourced both locally and through imports, which exposes the supply chain to risks such as foreign exchange fluctuations and customs delays. Distribution is managed through local networks, but infrastructure limitations and logistics inefficiencies present ongoing challenges. To strengthen its SCM, Liwayway Bangladesh should focus on improving supplier development, enhancing traceability, investing in digital supply chain technologies, and optimizing logistics operations. With its established brand and growing market, the company is well-positioned to turn its supply chain into a competitive advantage if it addresses these challenges proactively.

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Chapter: 1

Introduction

1.1Introduction

This Report is prepared on Liwayway Food Bangladesh Company Ltd., a Philippines based renowned multinational company. It represents the supply chain operations of Liwayway Food Bangladesh Company Ltd. and an overview of the snacks industry of Bangladesh.

Supply chain is the network of all the people, organizations, resources, operations and technology engaged in creating and selling products, from the supplier's supply of source materials to the manufacturer, to its final shipment to the end consumer.

In this report the current scenario of Liwayway Food Bangladesh Company Ltd. distribution networks, the critical situations they face, the process of managing the problems and what can be the prospective solution to those problems are going to be discussed.

Liwayway Marketing Corporation was established in 1946 starting its humble beginnings with repackaging of starch and coffee. The famous starch named as Liwayway Gawgaw started to advertise in magazines and radios. Liwayway got their name during the post- war era which means optimism and hope, just perfect for the innate spirit of Filipinos. Mr. Carlos Chan is the owner of Liwayway Marketing Corporation.

Liwayway Marketing Corporation serves their customers a large variety of product offering through their brand Oishi. In fact, their first savory snack is widely known for the name of the brand, Oishi Prawn Crackers, that when a customer says he wants an Oishi, he particularly meant the Prawn Cracker. From then on, Oishi started to venture out to other category like Beverage, Milk, Cereals, and Cookies, Biscuit and Wafers.

1.2Origin of the Study

The reason behind creating this report is to complete a part of my MBA curriculum identified as Internship. The organization where I completed my internship is Liwayway Food Bangladesh Company Ltd., a Philippines based snacks multinational. During the Internship I learned about the real implementation of Supply chain and project management. This report has been drafted on the overall concept of how Liwayway Food Bangladesh Company Ltd. manages the supply chain process, gives logistic support and how it analyses the prospective scenarios for distribution networks. The title of the report is **An Analysis of the Supply Chain Management of Liwayway Food Bangladesh Company Ltd.**

1.3 Objectives of the Study

The study has been carried out with the following objectives.

i. To analyze supply chain activities of Liwayway Food Bangladesh Company Ltd.
ii. To evaluate supply chain activities of Liwayway Food Bangladesh Company Ltd.
iii. To Identify the problems related to the supply chain activities of Liwayway Food Bangladesh Company Ltd.
iv. To make some recommendations to solve the problems.

1.4 Purpose of the Study

Supply chain management is one of the most important parts of an organization because it increases competitiveness and customer satisfaction. Currently, Supply chain management is an essential component of the achievement of a company. Efficient supply chain function enables companies to deliver products to the end user rapidly at a low price. It is a significant part of most businesses. Supply chain management process also helps to forecast the upcoming impacts of current distributors. The reason of this report is to do an in-depth analysis of Liwayway Food Bangladesh Company Ltd. about their concept and technique of optimizing prospective distribution network.

1.5 Methodology of the Study

Methodology defines how we go through all the processes of research and how have proceeded on. Here include the steps of conducting the report and the explanation of the sources of data. This report has been prepared on the basis of experience gathered during the period of internship.

i. **Nature of the study:**

The study is exploratory in nature focusing on qualitative analysis and description. The report is based on primary sources of information. Interviewing the managers and officers of the Company, talking to the customers.

ii. **Sources of data:**

- **Primary sources of data**

Interviews: Semi-structured interviews were conducted with key personnel at Liwayway Food Bangladesh Company Ltd., including senior management and operational staff, to gain insights into their experiences, challenges, and strategies in the supply chain management activities.

- **Secondary sources of data**

Secondary data refers to a data which is collected by someone who is someone other than the user. As this report is made from a daily experience so the internet data search is used for the discussion of some topics.

iii. **Target population:**

The target population for this evaluation includes at Liwayway Food Bangladesh Company Ltd. existing and potential customers, marketing and sales employees, company management, industry experts, and distribution partners. These groups provide key insights into the effectiveness and impact of the company's supply chain management activities.

iv. **Sample Size:**

There is total 25 respondents. Collected data from supply chain management and marketing officers of at Liwayway Food Bangladesh Company Ltd.

v. **Sampling method:**

A convenience sampling method has been performed for selecting samples.

vi. **Method of Data Collection:**

The information that was required to do this report was collected by the Supply Chain department. The whole department was so supportive and provided me with all the information and support. This report is based on previous data and calculation of Liwayway Food Bangladesh Company Ltd.

vii. **Data Analysis Technique:**

MS Excel was used for data analysis.

1.6 Limitations of the Study

There were some limitations while making this report. Some of these limitations are stated below:

- Time was the crucial obstacle for making this report. Some more time was needed to notice and observe the actual condition, the working methods and everything.

- As an intern I do not handle all the Supply chain activities of the company. So, it was a bit difficult for me to write up about the whole SC activities.
- Privacy was another issue. Company never wants to disclose each and everything outside. Though my seniors helped and cooperated with me so much to make this report more informative, but since I am not a permanent employee here, there were some obligations to disclose every confidential thing to me.

Chapter: 2

Company Profile

2.1 Company Background

Liwayway Marketing Corporation or Oishi engages in distribution of snack products. It offers beverages, cookies, corn snacks, popcorn and peanuts, potato snacks, seafood, and vegetable snacks. In addition, it offers milk, sweets, and cereals. The company was founded in 1966 and is based in Pasay, Philippines. Liwayway Marketing Corporation operates as a subsidiary of Liwayway Holdings Company Limited.

Liwayway Marketing Corporation was established in 1946 starting its humble beginnings with repackaging of starch and coffee. The famous starch named as Liwayway Gawgaw started to advertise in magazines and radios. Liwayway got their name during the postwar era which means optimism and hope, just perfect for the innate spirit of Filipinos. Mr. Carlos Chan is the owner of Liwayway Marketing Corporation. Liwayway Marketing Corporation serves their customers a large variety of product offering through their brand Oishi. In fact, their first savory snack is widely known for the name of the brand, Oishi Prawn Crackers, that when a customer says he wants an Oishi, he particularly meant the Prawn Cracker. From then on, Oishi started to venture out to other category like Beverage, Milk, Cereals, and Cookies, Biscuit and Wafers.

2.2 History

Oishi, started in 1946 as Liwayway, was originally a family-owned corn starch (gawgaw) and coffee repacking business. The name of the business, "Liwayway," meaning "dawn" in Tagalog, was selected to reflect the optimism of the Philippines following the aftermath of World War II. By 1966, in addition to distributing starch, the company also was distributing basic commodities, coffee, and confectioneries. It was incorporated as the Liwayway Marketing Corporation (LMC) in 1966.

Brothers Carlos and Manuel Chan, at the time, were behind the company. Their brother Ben is the founder of BENCH/, a popular Philippine clothing brand. The parents of the Chan brothers are immigrants to the Philippines from Jinjiang county, Quanzhou, Fujian Province, China.

The company began distributing Oishi Prawn Crackers and Kirei Yummy Flakes in 1974. The company claims to have used technology from Japan to make the products.

2.3 Expansion

Carlos Chan began prospecting on the expansion of Oishi to China in 1984, following the liberalization of the Chinese economy under Deng Xiaoping starting in 1978.

The company's China division, established in 1993, is headquartered in Qingpu District, Shanghai. To improve distribution in China, the company established a factory network there. Oishi also established a presence in Vietnam in 1997 and in Myanmar in 1999. In 2006, factories were opened in Indonesia and Thailand.

2.4 About Liwayway Food Bangladesh Company Ltd.

Liwayway Food Bangladesh Company, doing business as Oishi, is a snack food and beverage manufacturing company established in 2019 in Bangladesh with approximately 300 employees.

The company aims to cater to the local markets of Bangladesh providing a variety of high-quality food and beverage products at an affordable cost.

Overview

- Name: Liwayway Food Bangladesh Company Ltd., doing business as *Oishi*.
- Location: B Block, Holding 102, Jolarpar, Kaoultia, Gazipur Sadar, Gazipur, Dhaka region, Bangladesh.
- Industry: Snacks & beverages (manufacturing of food products)

History & Background

- Liwayway Group of Companies is a Filipino firm, best known for its "Oishi" snack brand.
- In 2018, Liwayway Group announced an initial investment of USD 10 million to establish operations in Bangladesh (including property acquisition and building a facility).
- The plan was to build a manufacturing facility in Dhaka (Gazipur area) to produce snacks tailored to local tastes, with considerations like halal certification.
- The company was established in Bangladesh in 2019.

Operations

- They manufacture a variety of snack foods and beverages. The product types include (but may not be limited to) chips, biscuits, snacks, etc.
- The facility is certified/works under standard food safety, quality control regimes (GMP, HACCP, etc.) as part of their QC and production roles.

Scale & Staff

- Approximate number of employees: ~300.

- They aim to serve the local Bangladeshi market, offering “high-quality food and beverage products at an affordable cost.

Strategic Considerations

- Bangladesh with its large population and relatively under-penetrated snack food market was seen as a good opportunity.
- The entrance included adapting to local flavor preferences (for example flavors that suit Bangladeshi palates) and ensuring halal certification to meet local regulatory and cultural needs.

2.5 Founder of the Company

Carlos Chan

- Carlos Chan owns Oishi brand, which makes snacks like selling potato chips, candy and prawn chips.
- He started the business in 1993 in China, where he leased a state-run factory and sent his sons to run operations.
- He also has hospitality interests through a venture with Chinese brand Jin Jiang in partnership with Edgar Sia II.
- In August, Chan was reappointed as a special envoy to China by Philippine President Rodrigo Duterte to improve ties with Beijing.

2.6 Logo

2.7 Vision

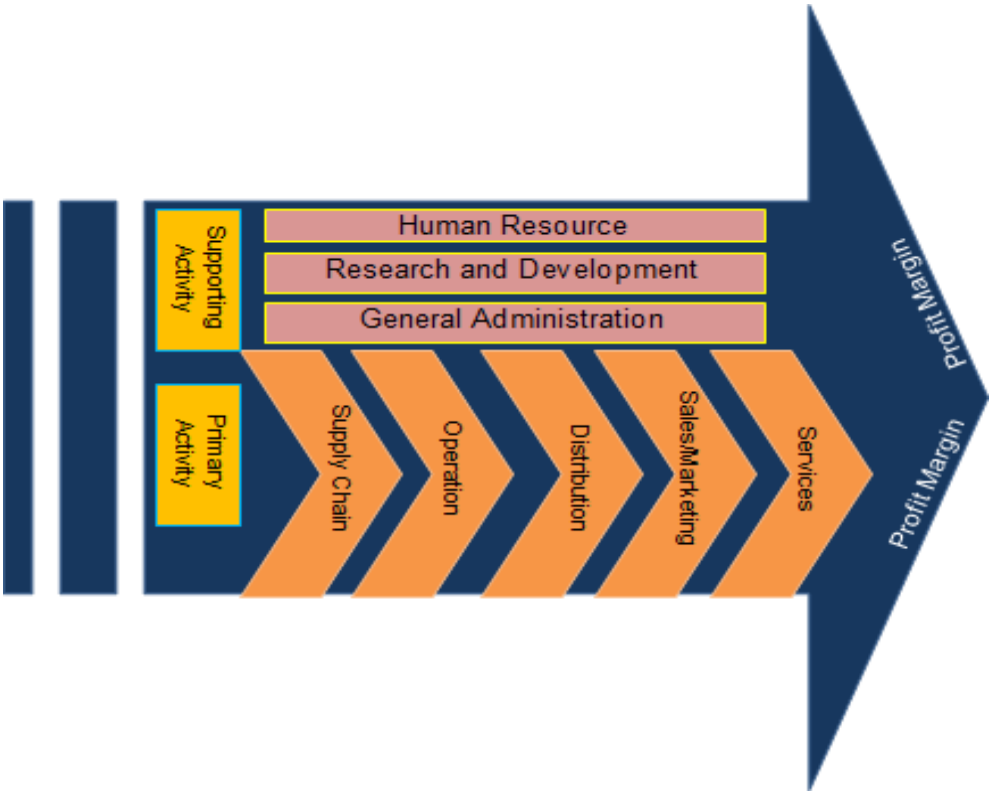
- Provide our consumers with the widest range of quality food products at best value;
- Live by and uphold the creed of business integrity in all our dealings;
- Develop and nurture long-term relationships with our suppliers, distributors, and consumers; and
- Maintain an excellent work force by being involved in the development of our employees' skills, knowledge, and attitude.

2.8 Mission

Aside from their ideals, they also believe in being a Good Chef. A Good Chef has the following principles:

- Clean equipment and good personal hygiene
- Choice ingredients and appealing presentation
- Precise and standardized process for consistent quality
- Efficient and not wasteful
- Cleanliness and safety in the kitchen

2.9 Value Chain Analysis



2.10 Products

eoret of SCM

Chapter: 3

Theoretical Frameworks of SCM

3.1 The Origin of SCM

The term "supply chain management" as we use it now was first used in respectable media and literature in the early 1980s. More precisely, it first appeared in an article in the Financial Times in 1982 by Oliver and Webber that described the organization's scope of supplier management and processing. However, the early supply chain management literature from the 1980s focused mostly on purchasing operations. The 1990s saw a significant expansion and rise in publications in the areas of supply chain integration and supplier-buyer relationships as the concept as we now know it started to be gradually established.

3.2 Importance of SCM

Among many other things, supply chain management increases productivity, income, costs, and teamwork. SCM provides companies with the resources they need to better control demand, maintain the right level of inventory, deal with disruptions, save expenses, and meet customer demands. There are several supply chain management (SCM) benefits when the appropriate methods and resources are employed to handle the growing complexity of today's supply networks.

3.3 Common Factors of SCM

There are a number of factors to take into account when deciding how to expand a supply chain. As Mattson (2002) notes:

- The quantity of primary and secondary suppliers. Module suppliers or several subcontractors
- The supplier's address
- The size of the supplier
- Cooperating with the supplier
- Direct deliveries
- Centralized, regional, or local storage
- Distributors who provide other companies with third-party logistics, or 3PL, services

3.4 SCM (Supply Chain Management) Process

One individual or business is not in charge of all supply chain operations. It requires the active participation of several individuals in a variety of processes.

- Planning: This process aims to develop both short- and long-term supply chain plans that work. Supply chain leaders must create integrated supply chain strategies for everything from supply chain network architecture to customer demand forecasting.
- Procurement: The buy process is concerned with acquiring the necessary items, components, and raw materials.
- Production: The process of creating finished goods or components for other products include the manufacturing, conversion, or assembly of raw materials. Supply chain managers guarantee that essential commodities are available when needed and support manufacturing.
- Distribution: The logistical movement of commodities along the supply chain is managed by the move process. Goods are moving swiftly and securely toward the point of demand thanks to the efforts of transportation companies, third-party logistics providers, and others.
- Customer Interface: The demand process centers on all matters pertaining to organizing customer interactions, meeting their requirements, and flawlessly completing orders.

3.5 Seven Principles of SCM

- Principle 1: Segment customers based on the service demands of diverse groups and adjust the supply chain to serve these segments profitably.
- Principle 2: Customize the logistics network to the service requirements and profitability of customer segments.
- Principle 3: Listen to market signals and align demand planning properly across the supply chain, ensuring consistent predictions and effective resource allocation.
- Principle 4: Differentiate product closer to the customer and expedite conversation across the supply chain.
- Principle 5: Manage sources of supply strategically to lower the total cost of owning materials and services.
- Principle 6: Develop a supply chain-wide technology plan that supports many levels of decision making and gives clear perspective of the movement of products, services, and information.
- Principle 7: Adopt channel-spanning performance measurements to monitor collective success in reaching the end-user effectively and efficiently

3.6 Common Challenges of SCM

The Supply Chain Council is assisting organizations to take a hard look at their supply networks in rooting out some serious inefficiency. Their objective is growth of supply chain expertise and how to utilize it in solving challenges. Some of the followings are challenges encountered in a supply chain and how the supply chain council seeks to aid in overcoming them:

Customer service is particularly crucial in the supply chain in delivering the correct product, in the right condition, right amount, right price, right place, right time, and appropriate documentation. It does sound simple and uncomplicated but indeed, it is not. The council offers a supply chain operations reference model, which create a platform for improvement. It will assist in analyzing cost performance; establish strategies for achieving customer expectations and respond to global as well domestic.

Cost control which are continuously under pressure in any supply chain and the council offers their SCOR mark-benchmarking platform in order to provide organizations with metrics as the basis in measuring.

Supplier and Partner relationship management is the other concern addressed by the council with its SCOR program. Organizations as well as department inside a company have their own approaches in communicating and measuring performance results and expectations. They give a single language across all boards from the classification and analysis of a supply chain. The usage of a single language and framework make communications simpler between teams boosts evaluation of best practices and speed up benchmarking efforts.

3.7 Supply Chain Management Software

Supply chain managers used to struggle to make their supply chains run efficiently and effectively years ago, before the Internet superseded all core technology and activities like physically keeping inventories. In vivo communication technology we use several software for maintaining the data, track the data and efferently handle all the operation. For maintaining all the warehouse activity vivo employs Warehouse Management System (WMS) & ERP software. Also, for controlling the scanning, PCBA, mobile phone tracking and controlling purposes employs MES & MES panda software. For logistics operation and shipment tracking purpose PMC, warehouse team of supply chain management employs the Transportation Management System (TMS). Also, for material identification verify, produce, bind unbind

all operation associated export and import warehousing uses the VLM system. By applying those technology vivo playing a great function in current advance planet. The software is only as good as the person supplying the data to it; consequently, supply chain managers must enter data into it appropriately if they want their supply chains to function and balance. A producer may perform all computations without utilizing a manual approach by installing supply chain management software. With proper supply chain management, there won't be any more surplus products stockpiled or paid to be made when there is no demand for them.

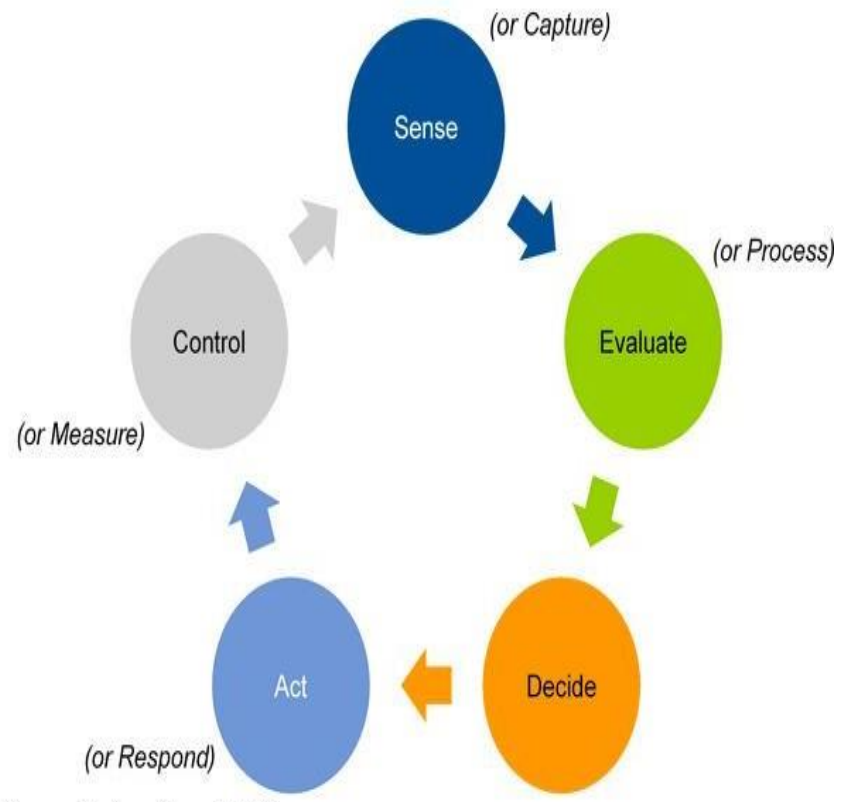
Chapter: 4

Supply Chain Activities in Liwayway Food Bangladesh Company Ltd.

4.1 Supply Chain Management

Supply chain management is the systemic, strategic coordination of the traditional business functions. It was also described as designing, planning, executing, controlling and tracking supply chain operations with the aim of generating net value, constructing a competitive infrastructure, leveraging global logistics, synchronizing demand supply and evaluating global output. Management of the supply chain is managing the flow of products and services. It includes moving and storing raw materials, inventories of work-in-progress and finished products from point of origin to point of consumption. The supply chain management needs to be provided by interconnected or interlinked networks, channels and business nodes.

Supply Chain Management is a paragliding word that includes a broad variety of logistics-related concepts to manage a product's entire manufacturing cycle from raw materials to final goods delivery. Efficient supply chain management not only guarantees timely delivery of products to satisfy clients, but also reduces waste by decreasing expenses for the supplier. Supply chain logistics is a complex set of principles that are difficult to ideally enforce because it is difficult to coordinate effectively between distinct organizations engaged in distinct phases of the chain. Blockchains can therefore be very helpful for effective supply chain activities as they enable the confidence to be managed throughout the network.



Steps to implement End to End supply chain visibility

Source: Gartner (June 2014)

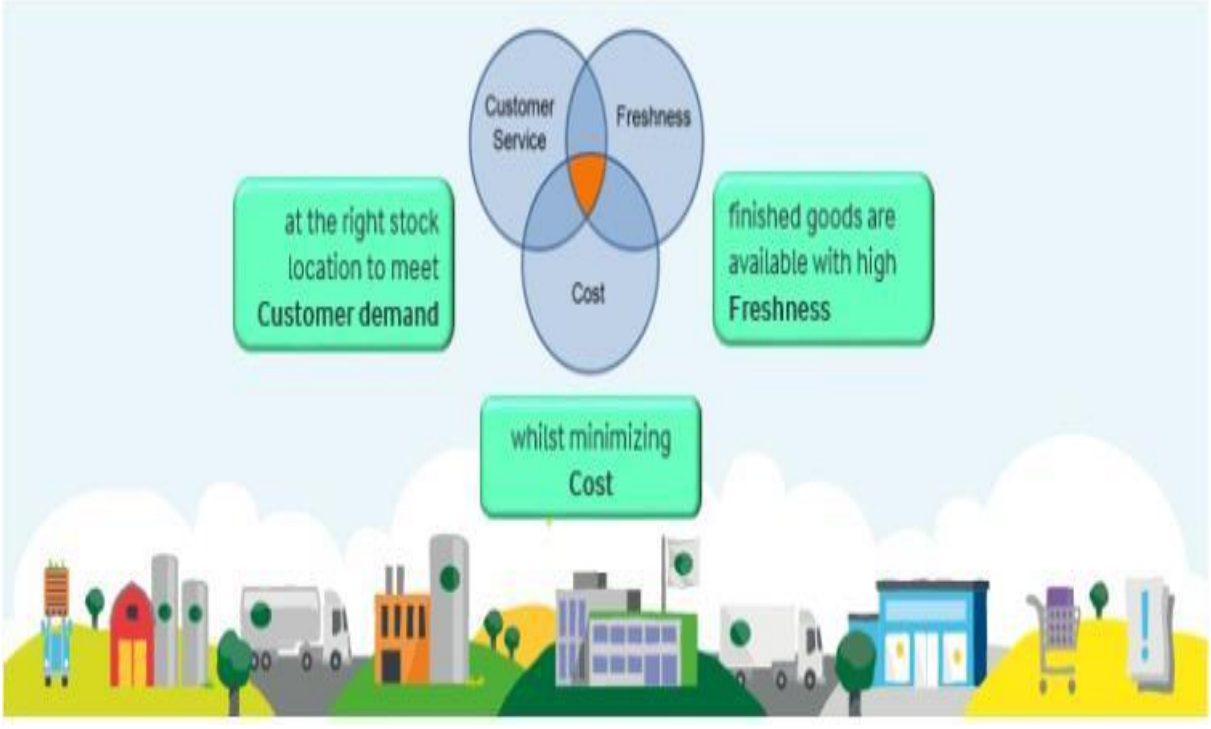
Main functions of Supply Chain Management are as follows:

- Inventory Management
- Distribution Management
- Channel Management
- Payment Management
- Financial Management
- Supplier Management
- Transportation Management

4.2 Mission of Supply Chain Management of Liwayway Food Bangladesh Company Ltd.

Global businesses manage numerous supply chains and rely on these activities not only to deliver products on time, but also to tailor and react to divergent customer and supplier price and package expectations. To do this, supply chain operators need the ability to customize multi-customer segment products. With so many critical functions in flux, enterprises need to optimize their supply chains simply to remain competitive.

The mission of supply chain is to provide the product within the shortest time to the customer at the minimum cost. The product must be available and must be fresh, also the product availability should be at the right stock location to meet customer demand. Along with the whole process, the management should keep in mind that the cost must be the minimum.



4.3 Primary Objective

- Minimizing raw material costs by optimizing yield losses and purchasing materials efficiently
- Minimizing production costs by working sympathetically with production constraints (e.g., batch size fixed costs, sequence related costs)
- Optimizing transportation and handling costs
- Minimizing the overall cost of holding inventory
- Reducing administration costs
- Giving customers the lead time, they require
- Delivering reliably against promised delivery dates
- Ensuring high levels of delivered quality

4.4 Delivery Accuracy

Delivery accuracy is one of the major concerns of supply chain management. SCM must ensure that the consumer gets the products fresh and right on time. It Measures service to the customer in terms of:

- ✓ Case- fill percentage delivered to the customer on time
- ✓ Kg percentage delivered to the customer on time

It is Measured as the percentage of delivered, comparing delivered quantity to requested (after first confirmation) delivery quantity. Deliveries are considered as on-time if the actual delivery date is the same as the accepted delivery date (after first confirmation). Delivery accuracy should be reported monthly at a category/national level. Delivery accuracy is measured by-

$$Deliverya\ ccuracy\ \% = \frac{Total\ number\ of\ cases\ (or\ Kg)\ delivered\ on\ time}{Total\ number\ of\ cases\ (or\ Kg)\ requested} * 100\%$$

4.5 Quality Defect Costs

A quality defect is defined as semi-finished & finished products that does not meet the agreed specifications and consequently is adjusted in value. Quality Defect cost is measured from production start until customer acceptance. Quality defect cost includes only planning- related

waste and downgrading. Quality Defect Costs should be reported monthly by category/national level.

Quality Defect Costs percentage is measured by-

$$Quality\ Defect\ cost\ \% = \frac{Qyality\ defect\ cost\ in\ currency}{dProduction\ value\ in\ currency} * 100\%$$

4.6 Demand Supply Management

The purpose of the demand planning processes is to continuously create the best unbiased guess on the future demand for the various products. This one set of forecast numbers are applied throughout the supply chain and are used for reserving machine and labor capacity in the dairies, ensuring enough supplies of packaging and ingredients, and optimizing products allocation.

Sales and Product Marketing provide what they could and would like to sell of which product. The result of poor demand planning often leads into a poor supply chain performance. For example-

Areas	**Example**
Customer Service	• Low service level to customers • Manual re-allocation between key accounts
Materials Planning	• Inaccurate input for purchasing
Production scheduling	• Plan disruptions
Inventory management	• Excessive (safety) stock • Suboptimal inventory mix/ high cost of obsolescence
Supplier management	• Inability to respond to demand
Logistics	• Excessive cost due to expediting

Best practices of determining demand picture are -

- ✓ One consensus view of demand –no disagreements
- ✓ High forecast accuracy, unbiased perspective on uncertain demand (e.g., new items

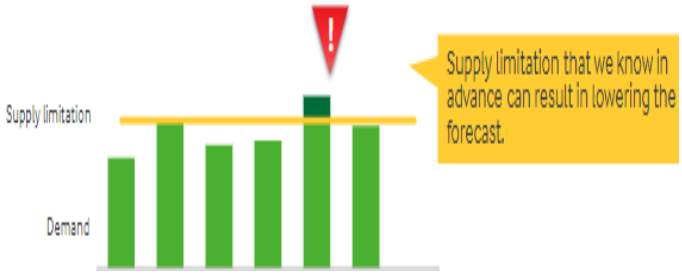
Manufacturing, supply chain, and purchasing provide a view on what can be made. To determine supply best picture, the best practices are -

- ✓ Clear picture of what can be made
- ✓ Early announcement of issues, no hiding.

Joint decisions on how to balance supply and demand, focus on issues and exceptions.

The best ways are –

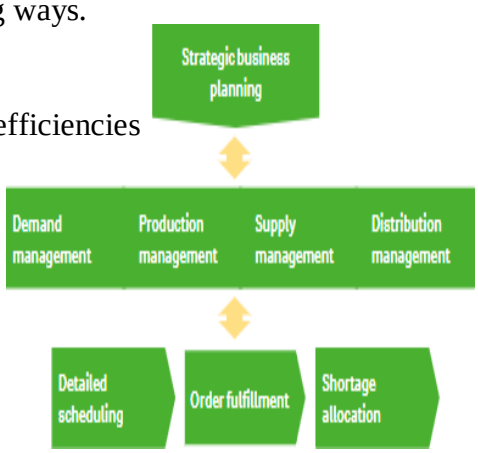
- ✓ Make issues evident no hiding
- ✓ Collaborate to solve issues
- ✓ Look forward and prevent issues
- ✓ Take decisions by top management



4.7 Cross Functional Integrated Planning

To support the supply chain Management, cross functional integrated planning is required. Cross functional integrated planning helps in following ways.

- Better responsiveness to demand changes
- Lower inventory levels due to reduced internal inefficiencies
- Value-driven decision making
- Collaborative process across functions
- Proactive planning for business disturbances
- Clear accountability and ownership of decisions
- Full transparency and common set of data



4.8 Supply Chain Relationship Management

Supply chain relationship management is a business strategy for improving communication between companies and their channel partners. The first component to successfully manage the supply chain connection is the capacity to assess the efficiency of a supply chain partner. The next is to have technology that helps automate procedures, thereby reducing busy work. The third is shared understanding to measure, manage and valuate associates publicly. The fourth is the relationships that suppliers really want to create long-lasting, useful relationships themselves. Understanding the strengths of supply chain partners is the area where one can likely to find mutual benefits.

To determine strengths, measurements are in place to comprehend key performance indicators such as offered tenders, accepted tenders, on-time pick-ups, on-time deliveries and any circumstances in which an approved tender is subsequently dismissed. Once these baseline measurements are in place, mutual possibilities can start to be explored. Opportunities often occur as circumstances in which the item wants to relocate, a transportation supplier has ability and additional traffic will benefit their network.

Once one start exploring these possibilities with supply chain partners, natural fits will become evident, which can provide a better general knowledge of capability levels and obligations. While obligations may not be optimal, they are essential to o ensure supply chain viability if capacity limitations start to happen. Without strong relationships, joint obligations, and a strong comprehension of the values of each partner supply chain, transportation suppliers tend to gravitate higher-paying freight when capacity is restricted.

Leveraging technology is the way to guarantee item is picked up and supplied on time. Measure the efficiency of providers and use TMS tendering technology to eliminate private preference by publicly debating challenges and issues. A connection based on these basic values builds confidence and provides the basis for mutual achievement.

4.9 Risk and Opportunities List Management in Supply Chain

The list is manually maintained in excel. Template and guideline can be found at the Sales and Operation team site. Ownership of list lies with Global Sales and Operation. Each market has the responsibility of updating content. The list contains both volume and financial implications of the risks & opportunities.

The benefits of this list are-

- The Risk and Opportunity list is an overview of the uncertainties not reflected in forecast, but relevant to Global Planning and Supply Chain
- Scenarios can be made based on the Risk and Opportunity list to give an indication of potential effect on production capacities and milk/fat balance
- The Risk and Opportunity list is an “offline” list, where raw material and capacity availability is not derived. For these calculations to be in place the forecast needs to be placed.

4.10 A Lean and Agile Supply Chain

In today's worldwide, vibrant economy, operating a supply chain that is both lean and flexible is useful to businesses. The mixture of lean and agile is known to have a hybrid supply chain approach. A hybrid supply chain approach may be suitable for a business trying to become a "mass customizer" generating gradually larger batch sizes (sometimes as small as one product) to the sometimes-distinctive requirements of clients. A Lean supply chain focuses on bringing value to the client while identifying and eliminating waste that does not add value. Being agile

and responsive on the other hand implies that your supply chain can handle unpredictability and a constant stream of new, creative products with speed and flexibility.

Liwayway Food Bangladesh Company Limited retains a fast and flexible supply chain system. It utilizes a wait-and- see strategy to client demand by not engaging in the final product until the real demand is known. They respond to real demand and are able to use data as an inventory replacement (to some extent) through cooperation and integration with important clients and vendors.

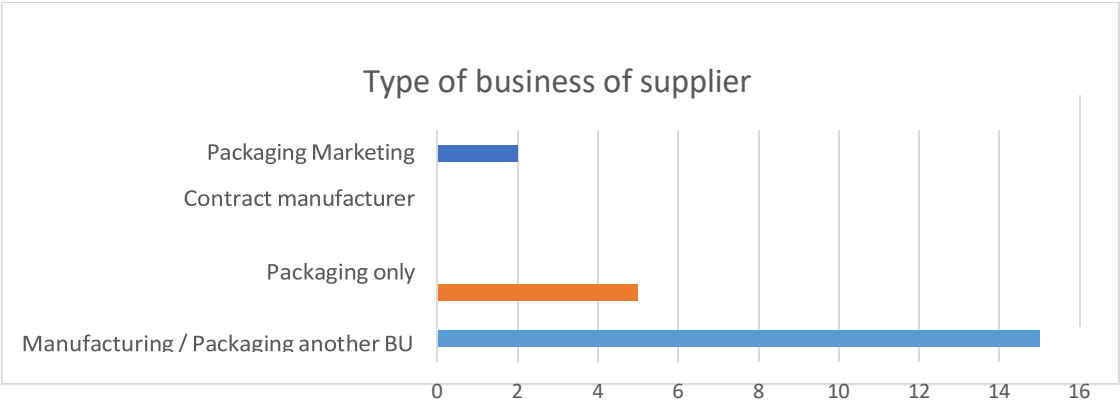
4.11 SWOT Analysis of Supply Chain Liwayway Food Bangladesh Company Ltd.

	Helpful To Achieving the objective	Harmful To Achieving the objective
Internal Origin (attributes of Organization)	**S-Strengths** 1. Highly Skilled supply chain team 2. Procurement and supply chain policy 3. Vendor management 4. Good Practices adopted by organization 5. Investment on R & D and Specification Management. 6. Innovative Products 7. 3P business partner of a Well recognized MNC. 8. High Product quality and able to make global brand with its very modern manufacturing system 9. Stable Market Share 10. ERP software	**W-Weaknesses** 1. Increasing of Raw and Packaging material cost 2. Labor Cost increasing 3. Low Inventory at site 4. No export 5. Supply disruption 6. Timescale, deadlines and pressure 7. Cash flow, cash drain
External Origin (Attributes of Environment)	**O-Opportunities** 1. Rural market 2. Income power of people increasing 3. Export potential 4. Reduction of product conversion cost 5. New products of different SKUs 6. Market shares very high 7. Focus on own brand products	**T-Threats** **1.** Counterfeit products in market **2.** Imported product in Market **3.** Loss of resources **4.** Legislative effects **5.** Rapid change in technology **6.** RM-PM price depends on global economy.

4.12 Analysis of Questionnaire

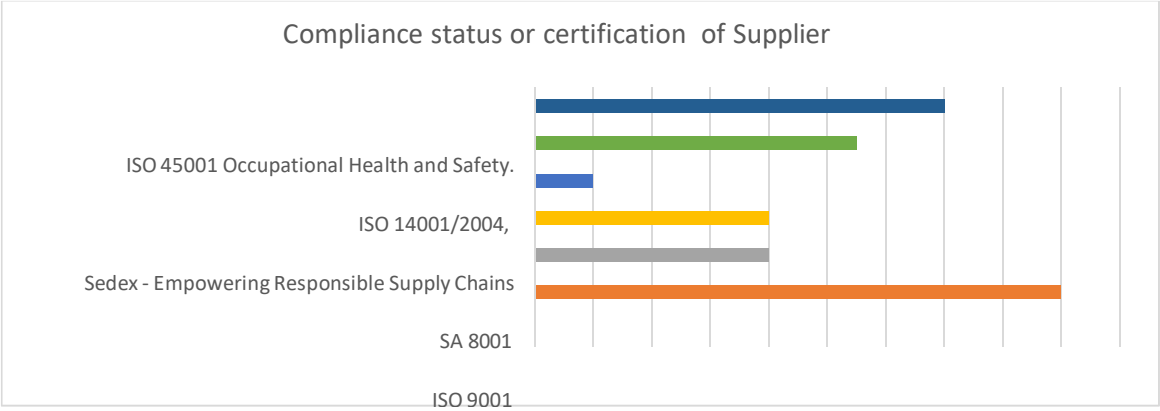
Structured questionnaire was developed and survey conducted among 25 suppliers. Questions are selected based on suppliers of Liwayway Food Bangladesh Company Ltd., product specification, suppliers' capability and suppliers' willingness to maintain quality products. All the data was collected through the systematic way or direct interview method. In this chapter collected data was analyzed. Quantitative data was presented in the graphical format. At the same time, collected data was analyzed. It results in the improvement of the actions. It results in the modification of the actions of the organization. Details analysis is given below-

1. Type of Business:



By this question investigator tries to investigate the type of business of supplier. Total 25 supplier participated in survey. 15 participants have own facility for production of their material, 5 have manufacturing facility in their business unit, 2 company are only packaging material manufacturer and 2 company are the marketing company of raw materials. There was no contract manufacturer in the supply network of Liwayway Food Bangladesh Company Ltd.

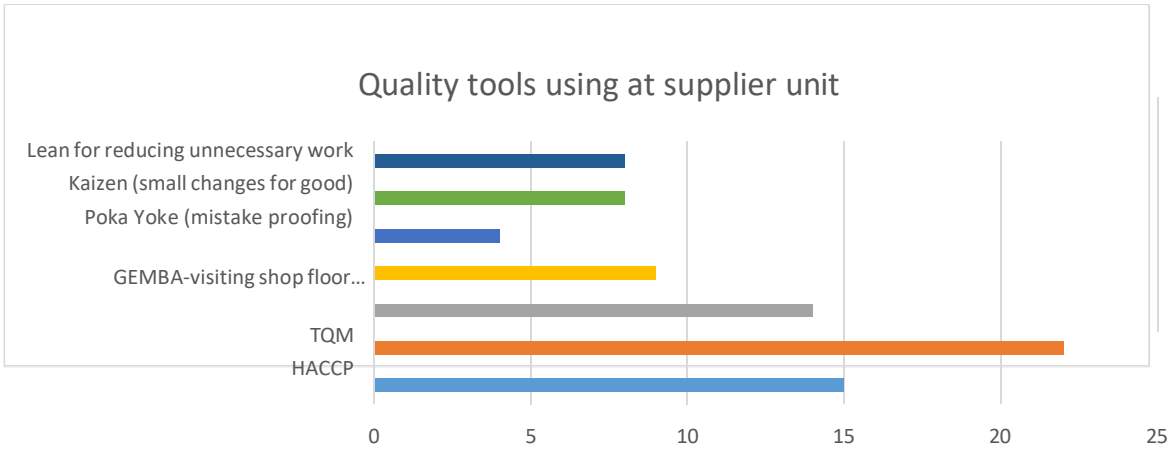
2. Compliance status or third-party certification status of Supplier.



Most of the compliance programs depend on the search in the primary tool. It helps to review the compliance status of the organization. To be a part of Liwayway Food Bangladesh Company Ltd. supply network certification of ISO 22000, FSSC, ISO 9001or ISO 450001 or

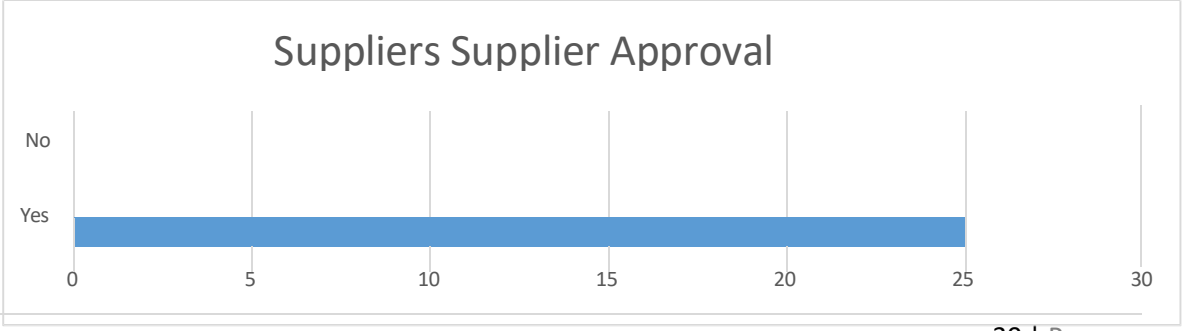
ISO 14001 is mandatory. From above table we can observe 18 suppliers are ISO 22000/ FSSC certified, 8 suppliers are ISO 9001, 14 supplier ISO 45001, 11 Suppliers ISO 14001, 8 suppliers are SA 8001 certified from third party certification company. From above chart we can summarize all the supplier meets the mandatory requirements to be a part of Liwayway Food Bangladesh Company Ltd. supply network.

3. What quality tools you are using at your manufacturing unit.



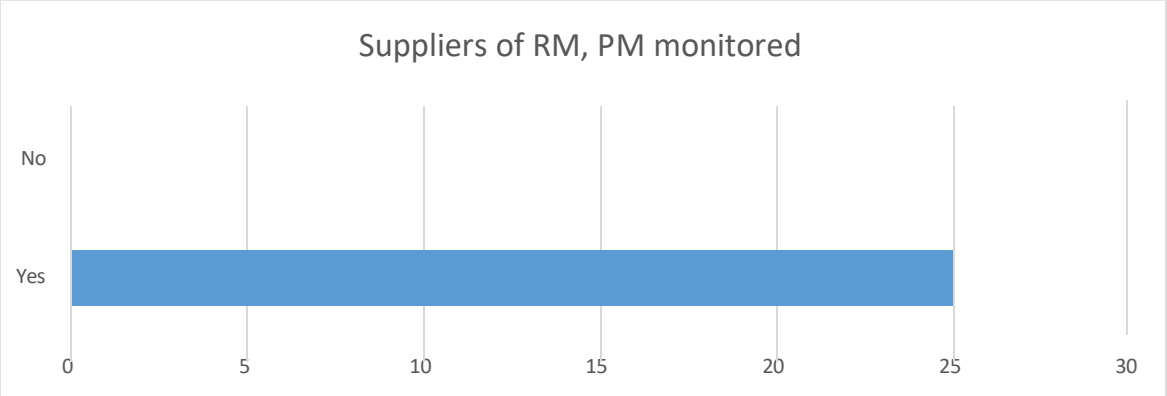
Ensuring product quality and meeting products specification is one of major criteria of Liwayway Food Bangladesh Company Ltd. suppliers. Liwayway Food Bangladesh Company Ltd. has a strict RM-PM monitoring program. If any parameter of RM-PM fails the specification Liwayway Food Bangladesh Company Ltd. can reject material. To meet the Liwayway Food Bangladesh Company Ltd. specification supplier implemented HACCP, 5 S, TQM, GEMBA, Kaizen, Poka-yoke, lean etc. During analysis of survey results we observed 22 supplier implemented requirements of HACCP, TQM implanted by 14 suppliers, % S implemented by 15 suppliers. Others quality tools like GEMBA, Kaizen, Poka-yoke, lean implanted by 9, 8,4, 8 suppliers respectively. Few suppliers implemented multiple quality tools to meet specification and to reduce wastage.

4. Is there a Supplier Quality Assurance procedure in place, laying down the criteria for selection, approval, review and ongoing approval, to ensure that the supplied products and services meet the expected requirement.



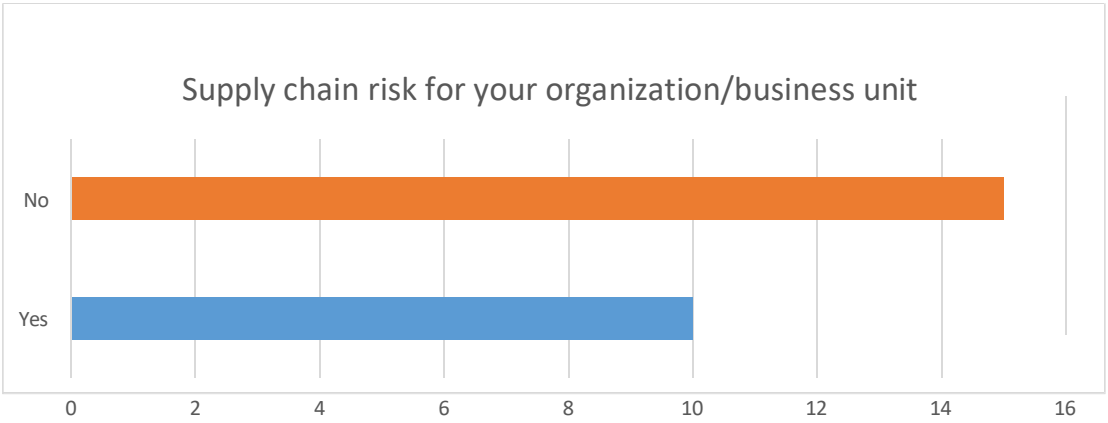
100 % suppliers have a supplier Quality Assurance procedure in place, laying down the criteria for selection, approval, review and ongoing approval, to ensure that the supplied products and services meet the expected requirements. From this questions Liwayway Food Bangladesh Company Ltd. get assurance that suppliers have a program for supplier's supplier approval process, which assures quality of tier-1 and tier 2 supplier of Liwayway Food Bangladesh Company Ltd.

5. Are the Quality Assurance procedures of suppliers of raw and packaging materials monitored?



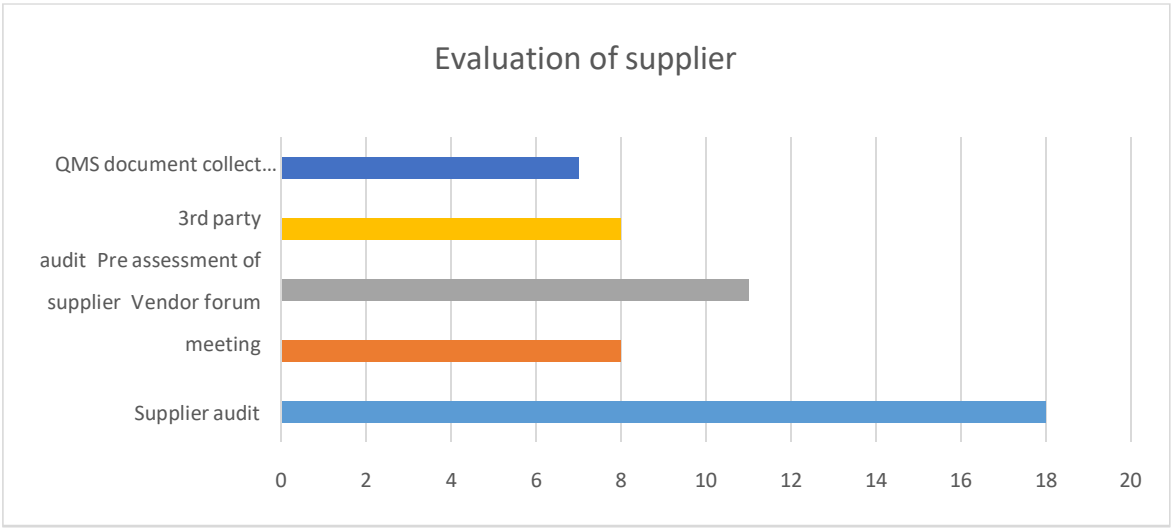
100 % suppliers have a supplier Quality Assurance procedure in place, laying down the criteria for selection, approval, review and ongoing approval, to ensure that the supplied products and services meet the expected requirements. From this questions Liwayway Food Bangladesh Company Ltd. get assurance that suppliers have a program to monitor and control the suppliers incoming materials assurance program.

6. Have you established an ongoing process of assessing supply chain risk for your organization/business unit.



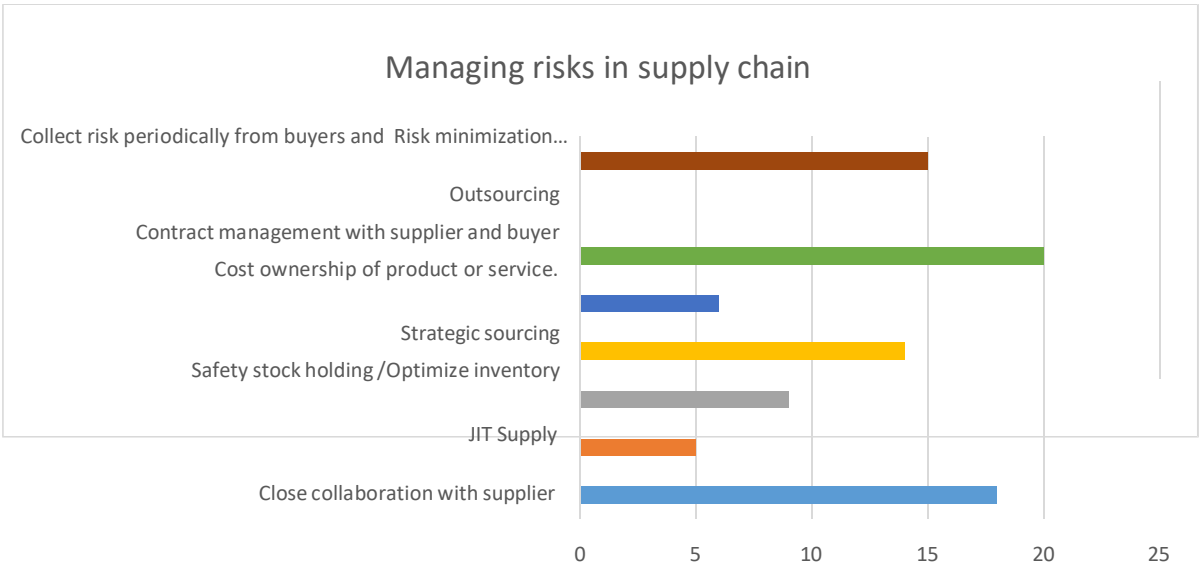
The organization shall have a documented and implemented risk assessment procedure in place that: identifies potential risks, develops control measures, and prioritizes them against the identified vulnerabilities. To identify the vulnerabilities, the organization should assess the susceptibility of its products. During analysis of survey results we came to know 40 % of supplier (10 Nos) have a process for analyzing supply chain risk rest 60 % supplier (15 Nos) have no process for analyzing supply chain risks. Those organizations who are not analyzing supply chain risks should gave analyze the supply chain risks for uninterrupted supply of materials.

7. How you are evaluating your supplier?



Supplier of Liwayway Food Bangladesh Company Ltd. should have a process for supplier selection, assessment, approval or conditional approval, audit for continual improvement and sustainability, evaluation of performance, supplier development related with the manufacturing of Liwayway Food Bangladesh Company Ltd. Most of the supplier (72 %) (18 Nos) have a process of supplier audit and remaining 28% supplier (8 Nos) has a process of audit using a third-party audit company. 11 suppliers of Liwayway Food Bangladesh Company Ltd. pre assess the supplier before audit and 7 suppliers collect QMS document during pre-assessment. *Supplier conduct vendor forum meeting to escalate any issue, recommendation, suggestions for improvement of un interrupted supply.

8. In what way you manage your supply chain?



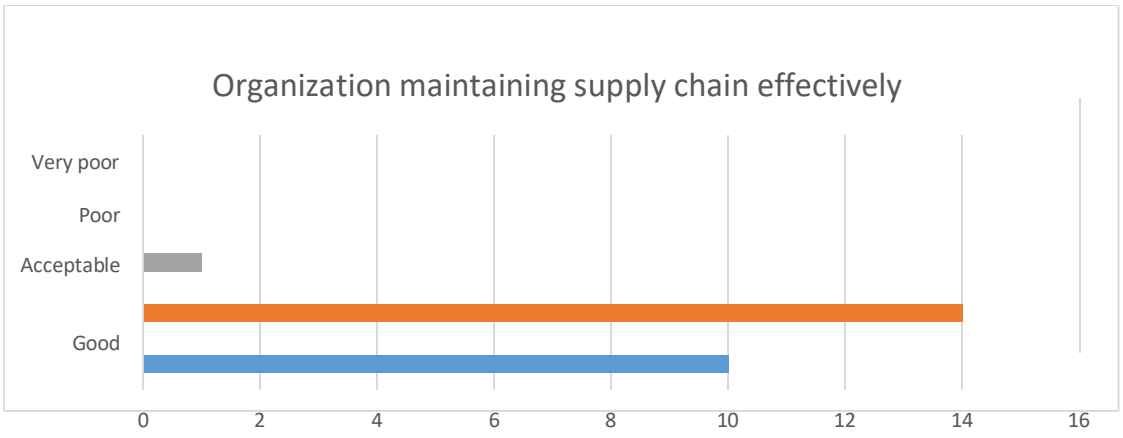
Managing risks in supply chain is one of the processes for un interrupted supply. This process included process to identify risks**,** risk mitigation, risk elimination, risk prevention and risk reduction. Risk treatment can involve:

Avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk;

- Taking or increasing risk in order to pursue an opportunity;
- Removing the risk source;
- Changing the likelihood and changing the consequences
- Sharing the risk with another party or parties (including contracts and risk financing); and retaining the risk by informed decision. (ISO 22000:2018)

For managing risks 15 supplier collects supply chain risks from buyer and mitigate the issue. 20 Supplier has a process of documented contract with supplier. 14 suppliers have a strategic supplier for their strategic supplier, 5 suppliers have JIT supply, 9 suppliers maintain safety stock for a certain period. To avoid supply chain and quality risk no supplier has outsource their materials.

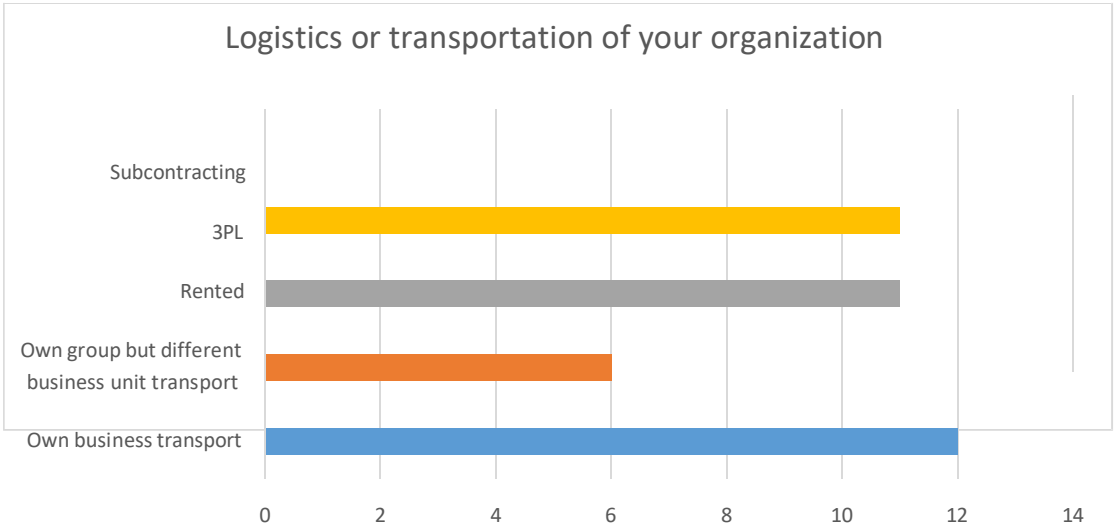
9. Do you think your organization maintaining supply chain effectively?



40% supplier (10 Nos) supplier think organization maintaining supply chain in excellent way and 56 % think in a good way and rest 4 % (1 supplier) think it's acceptable.

For maintain supply chain effectively supply chain visibility required including automated and IT engagement. It also includes training programs with good plan. To implement supply chain visibility, it is crucial that companies take into consideration everything from sourcing raw materials, manufacturing and supply to the buyers.

10. Logistics or transportation of your organization?



For avoiding supply chain risks on supply chain management, logistics, and procurement focus to be given on logistics and transportation. During survey we observed 48 % supplier (12 Supplier) has own transport and 24 % have transport in own group but in different business unit. If own transport is inadequate, then rented transport used by 44 % supplier (11 Nos) and 3 PL transport used by 44 % supplier (11 Nos).

Chapter: 5

Problems, Recommendations and Conclusion

5.1 Problems Identified

1. Strategic and Integrated Supply Chain Management:

Liwayway Food Bangladesh Company Ltd. operates a strategically integrated supply chain system that aligns traditional business functions with modern logistics principles, ensuring efficient coordination from raw material sourcing to product delivery through interconnected networks and channels.

2. Mission Focused on Speed, Cost, and Freshness:

The mission of the company's supply chain management is to deliver fresh products to customers in the shortest time and at the lowest cost, ensuring product availability at the right stock location to meet dynamic customer demands.

3. Clearly Defined Operational Objectives:

The company has well-defined primary objectives that include minimizing raw material and production costs, optimizing transport and inventory, reducing administrative expenses, and ensuring timely, high-quality deliveries that meet customer expectations.

4. Emphasis on Delivery Accuracy:

Delivery accuracy is a key performance indicator, tracked monthly at a national and category level, using metrics like case-fill and kilogram-based on-time delivery percentages to ensure customers receive the right quantity of products at the right time.

5. Quality Control through Defect Cost Monitoring:

Liwayway Food measures quality defect costs from production to customer acceptance, focusing on minimizing value losses from planning-related waste and downgraded products, thereby maintaining high product quality standards.

6. Data-Driven Demand and Supply Planning:

The company uses unified and unbiased demand forecasts across departments to align production, packaging, and labor capacities, while poor demand planning is identified as a major source of supply chain inefficiencies such as inventory imbalance and disrupted scheduling.

7.Effective Cross-Functional Planning:

Cross-functional integrated planning enhances the company's responsiveness to market fluctuations, facilitates proactive issue resolution, promotes transparency, and reduces inefficiencies, thereby supporting better decision-making across the supply chain.

8. Strengthened Supplier and Partner Relationships:

Supply chain relationship management is actively pursued through performance measurement, technological integration like TMS tendering, and mutual collaboration, resulting in long-term, value-driven partnerships with transportation and supply partners.

9. Structured Risk and Opportunity Management:

A manually maintained Risk and Opportunity List enable the company to identify and analyze potential volume and financial uncertainties not reflected in forecasts, supporting better scenario planning and capacity balancing on a global scale.

10. Adoption of a Lean and Agile Hybrid Supply Chain:

Liwayway Food has adopted a hybrid supply chain approach that combines lean efficiency with agile responsiveness, allowing the company to delay final production until actual demand is known, and to replace physical inventory with real-time data insights through close client and vendor integration.

5.2 Recommendations

1. Enhance Digital Integration Across the Supply Chain:

To strengthen its already integrated supply chain system, the company should invest further in advanced digital tools such as ERP (Enterprise Resource Planning) and AI-driven analytics to improve end-to-end visibility, automate repetitive processes, and enable real-time decision-making across all supply chain functions.

2. Continuously Optimize Cost and Time Efficiency:

While speed and cost are already emphasized in their mission, Liwayway should adopt predictive analytics and route optimization software to further reduce lead times and transportation costs, ensuring fresher product delivery while maintaining competitive pricing.

3. Expand Objective Tracking with KPIs and Dashboards:

To ensure continuous performance improvement, the company should develop interactive KPI dashboards to monitor its key objectives—such as cost reduction, delivery performance, and inventory turnover—in real time. These dashboards can help in quickly identifying inefficiencies and implementing corrective actions.

4. Improve Delivery Accuracy with IoT and Real-Time Tracking:

The use of IoT devices and GPS tracking in logistics can further enhance delivery accuracy by providing real-time updates on shipment location and condition, helping the company minimize delays and ensure customer satisfaction with accurate and timely deliveries.

5. Strengthen Quality Control with Root Cause Analysis Tools:

To reduce quality defect costs, Liwayway should implement root cause analysis tools and automated quality inspection systems at production and packaging stages. These technologies will allow early identification of defects and reduce waste caused by planning-related issues.

6. Invest in Demand Sensing and Forecasting Technologies:

For more precise demand planning, the company should consider demand sensing tools that use real-time data from sales, promotions, and market trends to adjust forecasts dynamically. This will reduce forecasting errors and better align production with market demand.

7. Formalize Cross-Functional S&OP (Sales & Operations Planning):

To maximize the benefits of cross-functional integrated planning, Liwayway should implement a formal S&OP process with regular cross-departmental meetings, scenario planning, and standardized templates for demand and supply reconciliation, improving accountability and transparency.

8. Deepen Collaboration with Strategic Suppliers:

The company should move toward strategic supplier partnerships by sharing long-term plans, co-developing solutions, and involving key suppliers in innovation processes. This will ensure better capacity alignment, reliability, and shared growth opportunities during supply chain disruptions.

9. Digitize Risk and Opportunity Management:

The manually maintained Risk and Opportunity List should be migrated to a cloud-based risk management platform that allows real-time updates, automated alerts, and risk modeling. This shift would provide faster response to market changes and improve global coordination.

10. Expand Lean-Agile Practices Across the Value Chain:

To fully benefit from its lean and agile hybrid supply chain model, Liwayway should integrate postponement strategies, modular product designs, and demand-driven production planning throughout its value chain. These enhancements will allow even greater flexibility in responding to unique customer needs with minimal waste.

5.3 Conclusion

This study covers primarily Liwayway Food Bangladesh Company Ltd. Supply Chain operations. It also includes my work duties as an intern. I was delighted to have completed my internship at Liwayway Food Bangladesh Company Ltd. I have attempted to define all the Supply Chain operations presently being carried out as well as the tasks to be carried out by Liwayway Food Bangladesh Company Ltd. well-developed dairy product distribution firm. With top velocity, Liwayway Food Bangladesh Company Ltd. is moving forward. It ensures commitment to the sale to its customer of the best quality product within the earliest period possible. Liwayway Food Bangladesh Company Ltd. is a well-positioned business and continues to innovate, focusing on its core competencies and quality engagement. Oishi was embraced as one of the most credible brands by people. The proper management system of the supply chain department has made it easier to contribute the products to the ultimate consumer. I believe this study will help others to understand the true significance of supply chain management, how it works, and what kind of operations a multinational FMCG business needs to carry out.

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Appendix

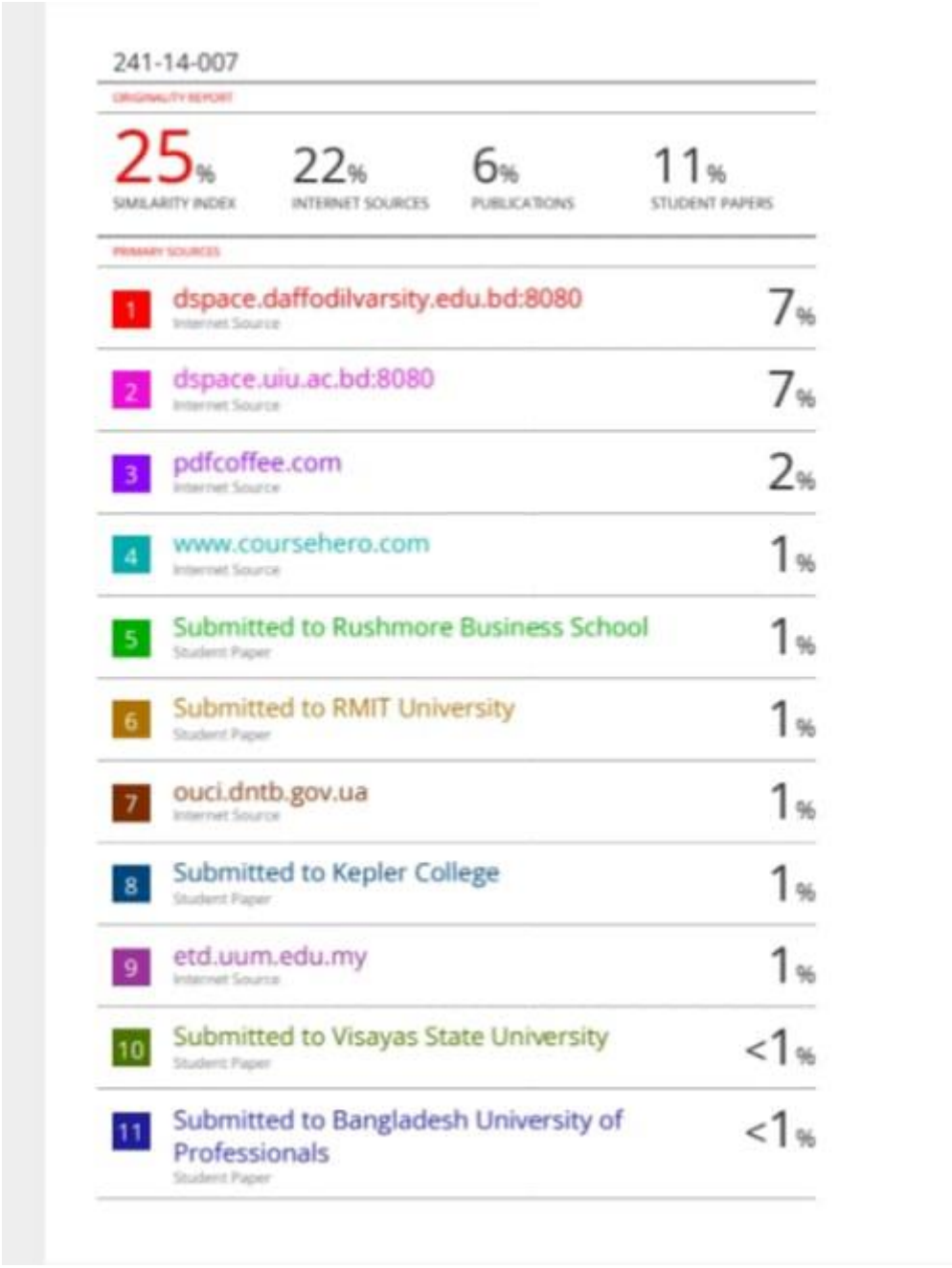
Assessment Questionnaire

(multiple answer may choose)

Name of Company: .....

1. **Type of Business:**
   a. Manufacturing / Packaging on site
   b. Manufacturing / Packaging within group
   c. Packaging only
   d. Contract manufacturer /
   e. Packaging Marketing
2. **Compliance status or third-party certification status of Supplier**
   a. ISO 22000/ FSSC 22000
   b. ISO 9001
   c. SA 8001
   d. Sedex - Empowering Responsible Supply Chains
   e. ISO 14001/2004,
   f. ISO 45001 Occupational Health and Safety.
3. **What quality tools you are using at your manufacturing unit**
   a. 5 S
   b. HACCP
   c. TQM
   d. GEMBA-visiting shop floor in manufacturing
   e. Poka Yoke (mistake proofing)
   f. Kaizen (small changes for good)
   g. Lean for reducing unnecessary work
4. **Is there a Supplier Quality Assurance procedure in place, laying down the criteria for selection, approval, review and ongoing approval, to ensure that the supplied products and services meet the expected requirements?**
   a. Yes
   b. No
5. **Are the Quality Assurance procedures of suppliers of raw and packaging materials monitored?**
   a. Yes
   b. No

6. **Have you established an ongoing process of assessing supply chain risk for your organization/business unit.**
    a. Yes
    b. No
7. **How you are evaluating your supplier?**
    a. Supplier audit
    b. Vendor forum meeting
    c. Pre assessment of supplier
    d. 3rd party audit
    e. QMS document collect and doc review
8. **In what way you manage your supply chain?**
    a. Close collaboration with supplier
    b. JIT Supply
    c. Safety stock holding /Optimize inventory
    d. Strategic sourcing
    e. Cost ownership of product or service.
    f. Contract management with supplier and buyer
    g. Outsourcing
    h. Collect risk periodically from buyers and Risk minimization through review
9. **Do you think your organization maintaining supply chain effectively?**
    a. Excellent
    b. Good
    c. Acceptable
    d. Poor
    e. Very poor
10. **Logistics or transportation of your organization?**
    a. Own business transport
    b. Own group but different business unit transport
    c. Rented
    d. 3PL
    e. Subcontracting



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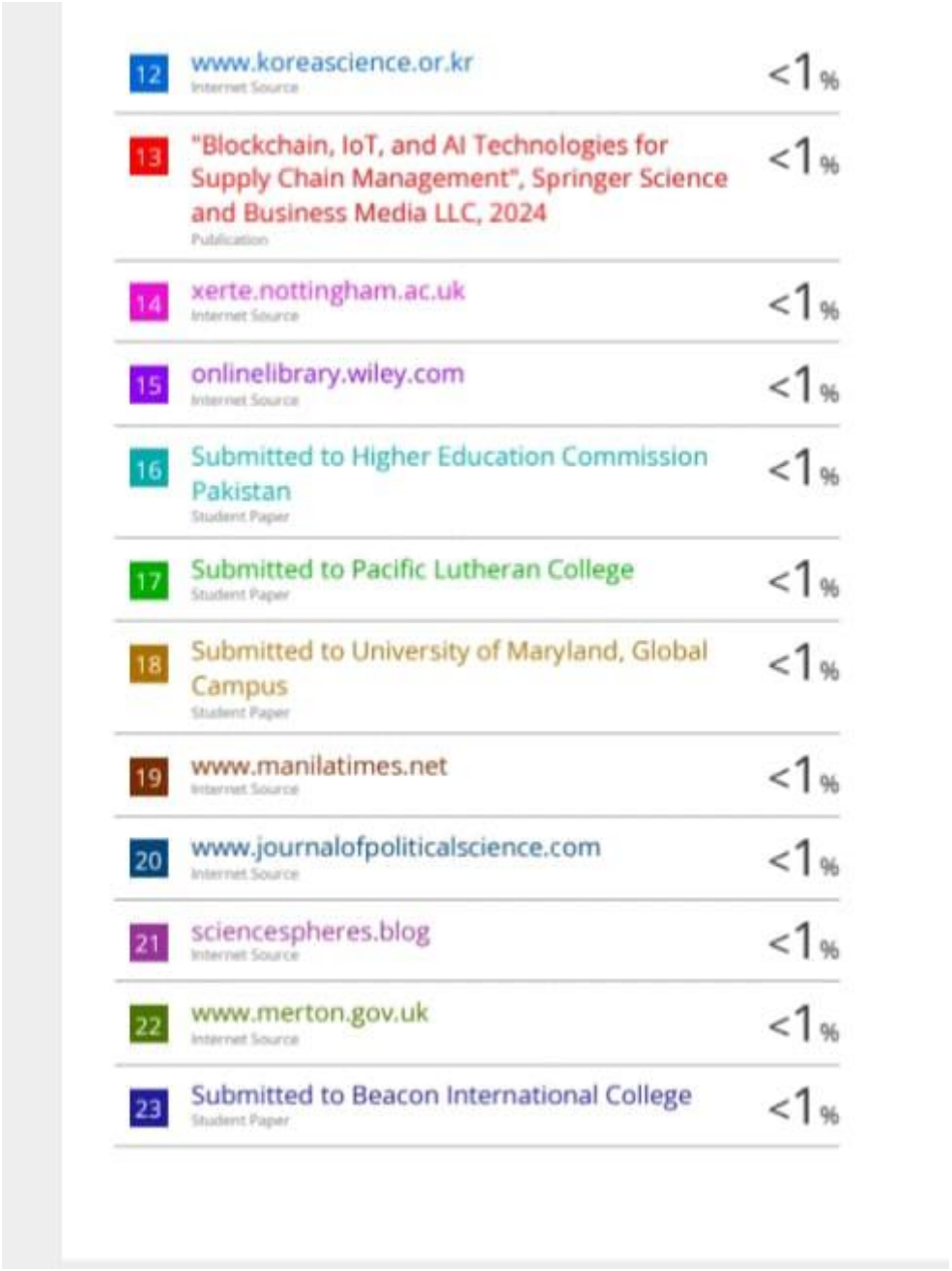

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