Project Dissertation Report

on

ANALYTICAL STUDY ON SUPPLY CHAIN MANAGEMENT IN PHILIPS INDIA LIMITED

Submitted By:

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2K20/DMBA/14

Under the Guidance of
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CERTIFICATE

This is to certify that **Akash Kumar**, a student of Delhi School Management, Delhi Technological University has completed project work on **"An Analytical Study on Supply Chain Management in Philips India Limited."** under my guidance and supervision.

I certify that this is an original work and has not been copied from any source.

Signature of Guide ----------

Name of Project Guide: **Mrs. Deepali Malhotra**

DECLARATION

I hereby declare that the Project Report entitled **"An Analytical Study on Supply Chain Management in Philips India Limited."** has not been submitted previously from the basis for award of any degree. This work embodies the result of my original work conducted under the supervision of **Mrs. Deepali Malhotra** the information submitted is true and original to the best of my knowledge.

Akash Kumar
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Specialization: MBA (Finance & Operations)

ACKNOWLEDGEMENT

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Thanks a lot everyone for making this possible!

Akash Kumar

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Summary

Executive Summary

Supply chain management (SCM) involves the planning, execution, and management of supply chain activities. Raw materials, work-in-process inventories, and completed goods transit and storage are all covered by SCM. Booz Allen Hamilton, a strategic consulting firm, originated the term supply chain management in 1982.

Internal and external technologies that facilitate information flow between enterprises and individuals, as well as between customers and suppliers, will be studied in IT for supply chain management. The amount of data available and the cost savings associated with smart data are driving much of the current interest in this field.

In the supply chain, the primary goal of information technology is to connect the site of production with the point of delivery or purchase. The idea is to create an information trail that follows the product's physical route. This allows for real-time planning, tracking, and lead time estimate. The shop, of course, must be informed of the progress of its orders, and suppliers must be able to anticipate a manufacturer order. Furthermore, participants want data in their own language. As a result, translation tables, such as bills of materials, are required throughout the system. The availability of product and material status information is the foundation for making informed supply chain choices. Furthermore, simply monitoring products along the supply chain is insufficient; numerous systems must be notified of the consequences of this movement.

Supply chain managers are in charge of inventories, transportation systems, and whole distribution networks. Organizations may use supply chain management to meet or exceed their consumers' expectations. In addition to cost savings, the supply chain management technique enables better customer service. It's a complicated and dynamic web of facilities and organizations with a variety of competing goals.

SCM will have to connect businesses in the future, enable increased communication among supply chain partners, and strive toward a synchronized value collaboration network. Firms can then discuss chain-wide profit maximization and economic value addition.

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Chapter-1

INTRODUCTION

In 1891, Koninklijke Philips N.V. (roughly "Royal Philips") was formed in Eindhoven. It has been based in Amsterdam since 1997, with the Benelux headquarters remaining in Eindhoven. Philips was formerly one of the world's top electronics businesses, but after divesting from other sectors, it is now solely focused on health technology.

Philips' three core divisions are Personal Health (formerly Philips Consumer Electronics and Philips Domestic Appliances and Personal Care), Connected Care, and Diagnosis & Treatment (formerly Philips Medical Systems). The lighting division, Signify N.V., was spun off as a separate entity. The company invented the Compact Cassette format and co-developed the Compact Disc format with Sony, among other breakthroughs, in 1939. Philips was the world's leading lighting manufacturer in 2012, according on relevant revenues.

Philips is a member of the Euro Stoxx 50 stock market index and has its principal listing on the Euronext Amsterdam stock exchange. It also has a secondary listing on the New York Stock Exchange.

Philips NV formed PIL as a wholly-owned subsidiary in 1930 as Philips Electricals Co. (India) Ltd. In September 1956, the business's name was changed to PIL, and in October 1957, it became a public limited company. PIL has production facilities in numerous product areas after originally focusing on trade. PIL began manufacturing lamps in Kolkata in 1938, followed by the establishment of a radio facility in 1948. In 1959, it established an electronics component manufacturing facility in Loni, Maharashtra, near Pune. In 1963, the Kalwa facility in Maharashtra began producing electronic measuring equipment. Following it, the business opened a factory in Kolkata to produce telecommunications equipment.

Chapter-2

COMPANY PROFILE

2.1 PHILIPS AT GLANCE

Royal Philips Electronics owns Philips in India. Philips is a part of almost every Indian's life as one of the country's most well-known and well-loved businesses. Philips products are used in almost every facet of everyday life, including at home, work, and on the go. Philips is now known for producing dependable and innovative goods that improve the quality of people's work and personal life.

Philips India was named The Most Respected Company in India in the Consumer Durables Sector by Business World Magazine in 2002. This award was given based on a peer perception poll performed by Business World Magazine and the India Market Research Bureau among 584 top business executives.

2.2 BRAND PROMISE

Our brand promise is "sense and simplicity." It encapsulates our commitment to producing innovative, user-friendly products and solutions that satisfy the needs of all of our consumers, no matter where they are on the planet.

2.3 STRATEGY

We will:

• Boost profits by reallocating money to opportunities with more consistent and greater yields.

• Grow in certain categories and areas by using the Philips brand and key expertise in healthcare, leisure, and technology.

• Establish business-to-business and business-to-consumer relationships with important customers and suppliers

• Improve our ability to lead

• Boost productivity by transforming your business and improving your operations

CHAPTER-3

LITERATURE– REVIEW

3.1 BACKGROUND

Individual enterprises, not supply networks, will compete in the new millennium. Any business's primary goal is to have the right items in the right quantities, in the right location, at the right time, and at the lowest possible cost. This leads to interconnected difficulties including customer satisfaction, inventory management, and flexibility. Customer happiness is highly dependent on the supply chain's flexibility, or its ability to adjust to variations in demand. In the early 1990s, GE, Dell Computers, Compaq, and other top American companies successfully adopted this approach. Many companies in APO member nations have implemented SCM methods in response to the increased competitiveness since then. The idea of Supply Chain Management (SCM) entails the use of cutting-edge IT solutions such as the Internet, Intranet/Extranet, E-commerce, and EDI to assist firms enhance customer service while also reducing inventory across the supply chain. Customers, suppliers, trading partners, and third parties collaborate with an SCM system to transform the way activities are seen, executed, and measured. Today's businesses are focused on establishing an economic and competitive edge across the product life cycle, which can only be accomplished by using SCM across the whole organization. (Tandon, 2017)

In light of this, this programme was developed for the benefit of organizations in APO member nations, with the goal of assisting them in considerably improving their productivity and competitiveness in the new millennium by effectively applying SCM concepts and practices. The programme, in particular, provided a platform for participating member countries to learn about the difficulties of developing SCM in APO member countries, discuss possible solutions to these difficulties and challenges, and share their experiences with practical SCM applications that have improved customer satisfaction, productivity, and competitiveness.

Building customer-focused supply chains, organizational problems in implementation, and current breakthroughs in SCM were some of the themes highlighted.

3.2 SUPPLY CHAIN MANAGEMENT

Supply chain management is the process of planning, executing, and managing supply chain operations in order to satisfy customer demands as efficiently as possible (SCM). Supply chain management covers all raw materials, work-in-process inventories, and completed goods transit and storage from the point of origin to the point of consumption. The word supply chain management was coined in 1982 by Booz Allen Hamilton, a strategic consulting firm. A supply chain is a network of facilities and distribution options that handles material acquisition, intermediate and completed product transformation, and customer delivery. Both service and industrial firms have supply networks, however the intricacy of the chain varies substantially by industry and firm to firm.

3.3 SUPPLY CHAIN DECISIONS

We divide supply chain management choices into two categories: strategic and operational. Strategic decisions are often made over a longer time horizon, as the phrase indicates. These are closely linked to the corporate strategy and, from a design standpoint, guide supply chain policies. Operational choices, on the other hand, are made on a daily basis and are focused on actions. The goal of these sorts of choices is to effectively and efficiently control product flow in a supply chain that has been "strategically" designed.

Shorter product life cycles, increasing rivalry, and higher consumer demands have led many cutting-edge businesses to shift from physical logistics to more complex supply chain management. Furthermore, many corporations have lowered their production costs as much as feasible in recent years. As a result, good supply chain management is frequently the only option to further cut prices and lead times.

In addition to cost savings, the SCM technique enables better customer service. It allows enterprises to manage stocks, transportation systems, and whole distribution networks, allowing them to meet or even exceed their consumers' expectations.

To put it another way, supply chain management may be thought of as a loop that begins and ends with the consumer. The loop is where all resources, finished goods,

information, and even transactions flow. Supply chain management, on the other hand, can be a tough undertaking since, in fact, the supply chain is a complex and dynamic network of facilities and organizations with several, competing goals. (Tandon, 2017)

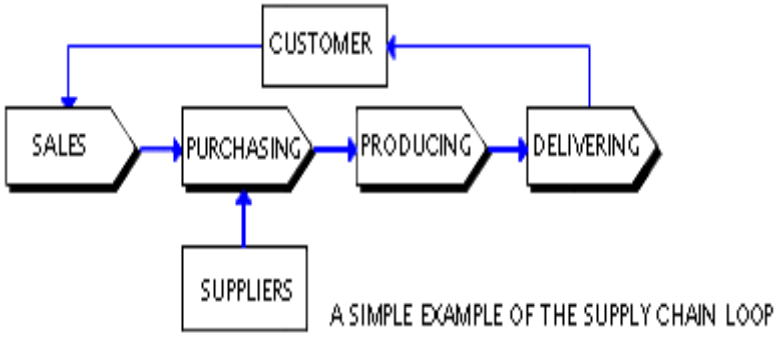


fig 3.1

What has allowed for the successful deployment of supply chain management since then? The fast advancement of information and communication technology provides the solution. The construction of a contemporary cost-effective supply chain management requires the use of databases, communication networks, and, most importantly, powerful computer software.

3.4 NEED FOR SUPPLY CHAIN MAANGEMENT

1. Supply chain management (SCM) is a concept or a mechanism for increasing the total productivity of businesses in a supply chain by optimizing the timing, location, and quantity of materials flowing from raw material providers to final product consumers. This concept is particularly useful in industries where (1) market competition is fierce, (2) customers are demanding (for example, the well-known Dell Built-To-Order model, which generates 84 percent of Dell's revenue from online customers who get to choose the final configuration of their personal computers and notebooks), and (3) product life cycles are short (for example, the electronics contract manufacturing industry currently) (ROI). To boost supply chain productivity, promising Asian enterprises should begin investing in solid IT infrastructure.
2. The APO member nations require excellent SCM systems on a national and regional level. Databases, model bases, visual maps, and user interfaces should all be included in this system. The effective application of such a system can assist to

reduce total SCM expenses (materials cost, production costs, warehousing costs, inventory costs and transportation costs). In the ROC and Singapore, similar systems are already on the market and in use by prominent companies in the electronics and information sectors. The advantages of using such a model can assist businesses in the highly competitive electronic and computer sectors in simulating their SCM strategies and determining the best SCM approach under various cost operating scenarios.

3. SCM should be linked to the digital economy, as increasingly demanding and tech-savvy customers expect goods and materials to be delivered to their doorstep at "click-speed" around the world. As a result of these demands, company and industry supply chains must become more real-time and dynamic. As a result, emerging technologies, such as intelligent software agents, will play an increasingly important role in SCM. The brave adoption of these intelligent agent-based decision support technologies can result in quantum leaps in supply chain productivity and agility. The employment of these software agents in the United States has proven to be quite effective, since these agents (software programmes) can actively participate in dialogue with the user and negotiate and coordinate the delivery of real-time information to other users on a web-based platform. Interfacing and integrating these agents properly can aid in the creation of a truly global logistics network. The development of the Global Tran spark in the United States is one example. The Tran spark connects production, transportation, and information in order to establish a cutting-edge logistical infrastructure for global trade. In the past, SCM is predominantly enterprise focused with mutually exclusive set of activities. Today, progressive firms are readily embracing systems integration through ERP and other means of electronic connectivity, primarily for cost reduction purposes. In the future, SCM would have to integrate enterprises, ensure greater collaboration between supply chain partners, work towards a synchronized value collaboration network. Only then can firms talk about chain-wide profit maximization and economic value add.

4. The following are some of the main challenges raised by the resource persons: building a supply chain infrastructure without harming the environment, i.e. how to have a green supply chain; setting up a reverse logistics programme for firms to ensure ecological balance and waste reduction; managing demand volatility faced

by enterprises as they move to a digital arena and greater dynamic customization; and how to extract better channel coordination between parties.

5. The resource persons also raised several pertinent concerns, including risk sharing between supply chain partners, inventory ownership (vendor managed or co-managed inventory), the applicability of some good SCM practices in certain industries (like VMI in the retail sector) to other industries,

6. The APO member nations require excellent SCM systems on a national and regional level. Databases, model bases, visual maps, and user interfaces should all be included in this system. The effective implementation of such a system can assist to decrease the entire SCM cost (materials cost, manufacturing costs, warehousing costs, inventory costs and transportation costs) (materials cost, production costs, warehousing costs, inventory costs and transportation costs). In the ROC and Singapore, similar systems are already on the market and in use by prominent companies in the electronics and information sectors. The advantages of using such a model can assist businesses in the highly competitive electronic and computer sectors in simulating their SCM strategies and determining the best SCM approach under various cost operating scenarios.

7. SCM should be connected to the digital economy, since more demanding and tech-savvy clients want goods and materials to be delivered to their doorstep at "click-speed" throughout the world. In response to these demands, supply chains of enterprises and industries need to be more real-time and dynamic. As a result, emerging technologies, such as intelligent software agents, will play an increasingly important role in SCM. The brave adoption of these intelligent agent-based decision support technologies can enable quantum leaps in supply chain productivity and agility. The employment of these software agents in the United States has proven to be quite effective, since these agents (software programmes) can actively participate in dialogue with the user and negotiate and coordinate the delivery of real-time information to other users on a web-based platform. Interfacing and integrating these agents properly can aid in the creation of a truly global logistics network. The development of the Global Transpark in the United States is one example. The Transpark connects production, transportation, and information in order to establish a cutting-edge logistical infrastructure for global trade.

3.5 SCM ACTIVITIES

The movement of raw materials into a business and completed items from the firm to the end consumer is managed by supply chain management, a multi-functional approach. Companies have relinquished control of raw material suppliers and transportation networks in order to focus on core capabilities and become more flexible. These tasks are increasingly being outsourced to companies that can execute them more quickly or for less money. As a result, the number of businesses involved in meeting customer demand has increased, yet management control over day-to-day logistics has decreased. Supply chain management ideas arose as a result of reduced control and increased supply chain participation. The goal of supply chain management is to increase inventory visibility and velocity by increasing the confidence of supply chain players.

3.6 INFORMATION TECHNOLOGY FOR SCM

Good SCM involves the use of IT. The potential afforded by the volume of data and the cost savings associated with smart data analysis are driving much of the current interest in supply chain management. People's interest in IT has been stimulated by the new alternatives that have appeared with electronic commerce (e-commerce), notably via the Internet.

SCM spans the whole organization and beyond, with suppliers on one end and customers on the other. As a result, our IT for supply chain research will include both internal and external technologies that facilitate information flow between businesses and individuals.

Furthermore, supply chain management is determined by how different departments communicate and interact inside a company.

Many firms benefit from information technology. Though this has always been true in-service industries like banking, it is becoming increasingly vital for large retailers, airlines, and manufacturers. The information technology of Wal-satellite-connected Mart's Mart, American Airlines' distinctive Sabre reservation system, Federal

Express's superb tracking system, and Cisco's "virtual manufacturing environment" are all prominent examples.

The IT that supports the various components of the supply chain operation is often disparate and disjointed. It has often evolved over time in response to a variety of local and corporate requirements that were seldom integrated. If a corporation wants to manage its supply chain successfully, it needs to handle this issue. Companies employ a variety of techniques to address these issues and develop systems that can successfully utilize the vast amounts of data available.

For efficient supply chain management, information exchange between suppliers, manufacturers, and consumers is crucial. This involves cross-company information flow, a relatively new notion that is now routinely used to variable degrees (e.g., e-mail, EDI, exchanges).

Advanced IT solutions frequently necessitate modifications to organizational structure, as well as employee job descriptions and behavior.

3.7 GOALS OF SUPPLY CHAIN INFORMATION TECHNOLOGY

In terms of the supply chain, we look at some of IT's long-term goals. Some companies and industries are still a long way from achieving these objectives, while others are well on their way.

- In order to make use of data, we must be able to collect, access, analyze, and share it for collaborative purposes. The aims of the supply chain management system in several domains are listed below.:
- Gather data on each product from conception to delivery or purchase, and provide all parties involved comprehensive insight.
- From a single point of contact, you can access any data in the system.
- Collaborate with supply chain partners to analyze, plan operations, and make trade-offs based on information from the whole supply chain.
- Companies may handle uncertainty through collaboration, such as risk sharing or information sharing, and achieve global optimization.

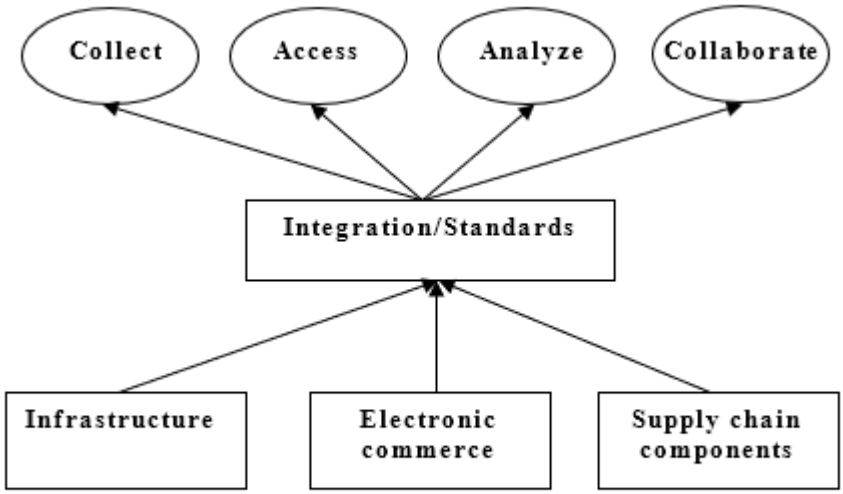


Figure: Goals and means of supply chain management

Fig 3.2

3.8 INVENTORY MANAGMENT

Inventory refers to a list of items and commodities that are kept on hand in a firm. An inventory can also refer to a moral inventory or self-examination. Physical and non-physical components can be found in inventories in computing. Inventory is defined as a "stock of commodities" in the dictionary. A stock of products or services stored for the purpose of future production or sale is referred to as inventory. Consumptive or non-consumptive products or services are possible. Inventories provide a future option to production or purchasing. As a result, inventory is both a store of products and services and a form of locked capital. Inventory provides a buffer between the manufacturing and utilization of commodities, which is mandated by manufacturing and transportation technological demands, as well as consumer demands. Inventories come in a variety of shapes and sizes. The most prevalent types are Raw Material and Supplies Inventories, Production Inventories, and MRO Inventories, as well as In Process Inventories, Finished Inventories, Material in Transit Inventory, and Dealer Stock.

3.9 INVENTORY CONTROL

Inventories are usually appropriate, and there are good reasons for them. Because inventories have a range of costs, inventory management effectiveness boils down to establishing a balance between the opposing cost factors. The management of an organization's inventory is known as inventory control. It's a way to maintain raw materials, work-in-progress, and completed items at present levels.

3.10 FACTORS INFLUENCING INVENTORY DECISIONS

Both internal and external factors impact an organization's inventory decisions. External impacts include market conditions, finance availability, and government regulations. There are two perspectives on market conditions. The first is that costs and availability are always changing. To combat this, we employ superior forecasting and planning techniques. Second, there is a time gap between placing an order and getting the supplies, which is referred to as lead time. Lead time is defined as the time it takes to recognize a need and fulfil it. Inventory levels grow as lead times lengthen. All administrative, production, shipping, and inspection lead times are included.In general, demand rates and lead times are varied. Additional inventories may be retained to compensate for lead time or demand rate uncertainty, minimising the risk of stock out during the lead time interval. This additional supply, known as safety stock or buffer stock, is held in excess of expected demand. A clear relationship exists between safety stock and service level.

3.11 MODERN INVENTORY CONTROL TECHNIQUES

Material Requirement Planning and Just in Time methodology have solved most of the difficulties associated with traditional inventory control systems for managing inventories in industrial situations. Modern inventory management methods are primarily designed for usage in manufacturing contexts. JIT is a relatively new concept in Japan that is widely used. These methods allow component components to be formed only when they are required by the downstream work center, ensuring that the correct number of parts are produced at the appropriate time and inventory is kept to a minimum. Other wealthy countries are also researching and testing JIT techniques.

JIT methods' success in Japan is due to the particular physical and philosophical aspects of the Japanese manufacturing system/culture. These advantages include the capacity to essentially freeze master production schedules, cross-train highly talented and disciplined Japanese personnel, use high levels of automation and robots, and benefit from material and components suppliers near proximity and dependability. These features allow Japanese companies to decrease system variability to the point where demand can be predicted extremely precisely and production metrics like machine processing times and utilization reach relatively steady levels. Other countries' manufacturing systems do not reflect these characteristics. JIT approaches are now being tested in industrialized nations but have yet to make their way to poor countries. In industrialized nations, MRP items are commonly used to regulate production inventories.

CHAPTER-4

OBJECTIVES & METHODOLOGY OF THE PROJECT

4.1 OBJECTIVES

• To examine the benefits gained by the company as an outcome of SCM's efficacy in the value chain, as well as how SCM contributes to the company's survival and competitive advantage.

• To study supply chain management concepts as well as the benefits of upgrading SCM practices.

Almost every firm today is confronted with the conundrum that maintaining inventory is costly and risky, while market demand is frequently urgent and very uncertain. This research aims to provide standards for the design of efficient supply chain networks. However, the availability of reliable input to any company via timely and accurate information is essential for a successful supply chain system. The analysis also takes into consideration forecasting future uncertainties in order to create acceptable designs and operational plans.

4.2 RATIONALE FOR THE STUDY

Businesses nowadays are successfully utilizing new information technologies like as the internet and communications systems, as well as organization shopping systems, to better information management, which has contributed in the development of affective SCM.

Philips is one of the biggest electronics companies in the world and known as market leader in energy saving lighting solutions, medical diagnostic imaging, consumer electronic and others. Although Philips have come out many types of electronic products, such like television, radio, MP3 player but their core product are lamps. Which means Philips is more expertise or profession in making lamps.

Phillips India Limited is the pioneer in consumer electronics & electrical markets. It has a benchmark over supplying of consumer electronics to the suppliers and market. That is why this company is chosen for the study of this project.

4.2 RESEARCH METHODOLOGY

The research was more subjective in tone, and it functioned as the project's moral compass. It was required to clarify the technique by which the Project would be carried out, i.e. the research practice would be carried out within a specified framework, in order to attain the Project's aims. The purpose of the study is to find new acquaintances. Research is a methodical and organized search for useful information on a certain topic. The data was gathered with the objectives in mind. The following details were gathered:

Primary Data:

A questionnaire was given to all stakeholders at various levels of the Philips India Office to assemble the SCM policies, strategies, and affectivity. The assessment of numerous SCM techniques in Philips India, as well as their merits and downsides, was critical to this investigation.

Secondary Data:

It includes information that was previously only available as publications. A manuscript is an extremely significant and trustworthy source of knowledge. Many academics utilize this valuable resource. The term "manuscript" refers to written paperwork that contains vital information about an issue or a learning feature. It can include, among other things, purchased content, periodicals, business profiles, annual reports, and internal searches. The information gathered was scrutinized and extensively analyzed.

Analytical Tools

In this research the main analytical tool used in collecting primary data is the Questionnaire. For this research a set of questionnaires has been used to gather information on the supply chain management. SPSS and Excel were used for analyzing the data and interpretation. The data obtained was analyzed using statistical techniques such as correlation, ANOVA & regression analysis.

Sample Plan

30 executives of the company (Philips India Ltd.) have been interviewed and 20 intermediaries- dealers and distributors been interviewed.

Sample Procedure: Convenience sampling was used for data collection. A total of 50 people were surveyed. It was double-checked to make sure all 50 replies were correct

Contact Method: The best-suited method for this kind of survey is Personal Interview. Through this method of conducting research more questions can be asked and it helped in collecting additional information

Research Hypothesis

H_{01}- Rating of inventory management of the company does not influence the Distribution system

H_1- Inventory management of the company is influenced by distribution system of the company

H_{02}- *The location rating does not influence the distribution system of the company.*

H_2 - *The location rating does influence the distribution system of the company*

4.3 CONTRIBUTION FROM THE STUDY

In different sectors, supply chain development has taken on distinct meanings. This research defined the standards for successful supply chain industries. This research created the standards for good supply chain management, as well as the evolution of managing close customer-supplier relationships. Several sectors, including as aerospace, automotive, and retail, have realized significant cost savings and increased efficiency by improving supply relationships.

4.4 LIMITATIONS

The most important issue was time, as interacting with top officials at Philips India Limited was usually difficult. However, every effort has been made to get all necessary information for this study.

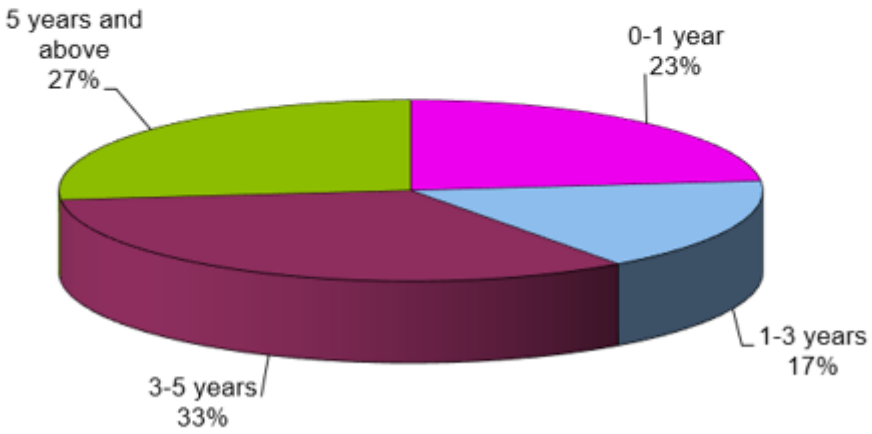
CHAPTER-5

DATA ANALYSIS

5.1 Interpretation of Google forms filled by Phillips Employees

1. Since when are you working in the company? *

0-1 year	7
1-3 years	5
3-5 years	10
5 years and above	8



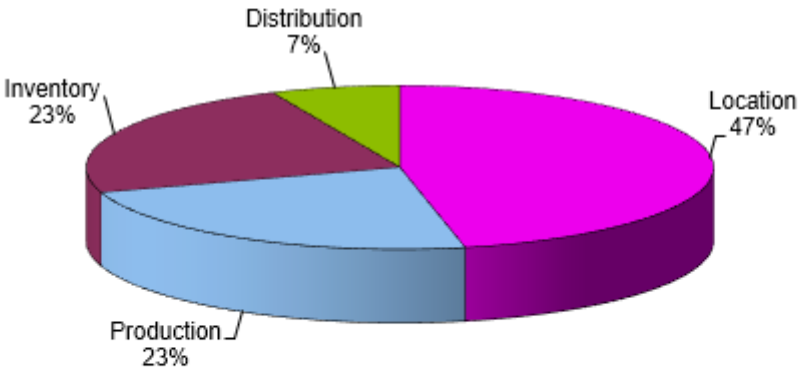
INTERPRETATIONS:

33 percent had been with the firm for 3-5 years. 27 percent of the people were under the age of five, 23 percent had recently joined Philips India Ltd., and the remaining 17 percent had been with the firm for 1-3 years

.

2. What do you think constitutes the supply chain management of the company? *

Location	14
Production	7
Inventory	7
Distribution	2

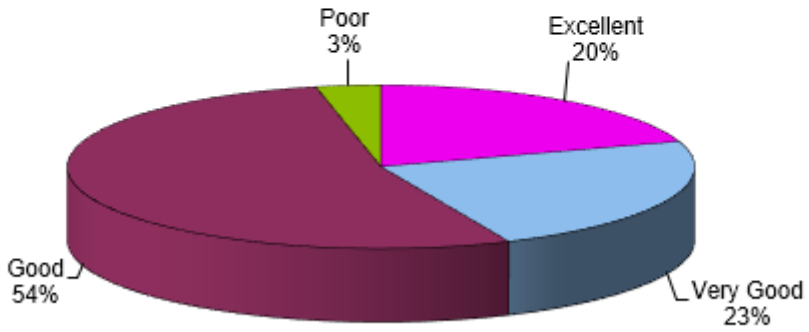


INTERPRETATIONS:

Location is a key component of supply chain management; it should be close to the firm to save money. Production and inventory are the next two factors to consider in supply chain management.

3. How would you rate the location of the company to be *

Excellent	6
Very Good	7
Good	16
Poor	1

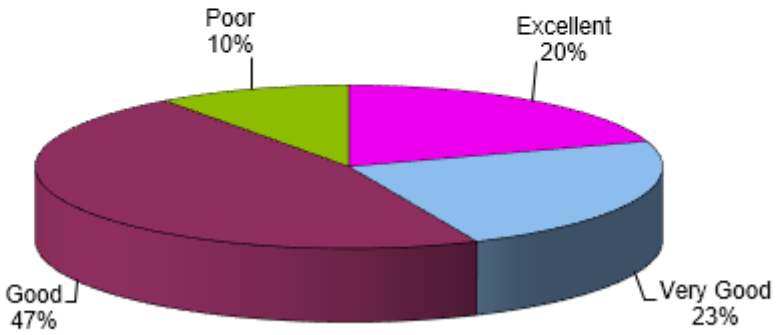


INTERPRETATIONS:

Only 3% of individuals are dissatisfied with the company's location, while the remaining 97% are satisfied with location.

4. How would you rate the production management/operation of the company to be? *

Excellent	6
Very Good	7
Good	14
Poor	3

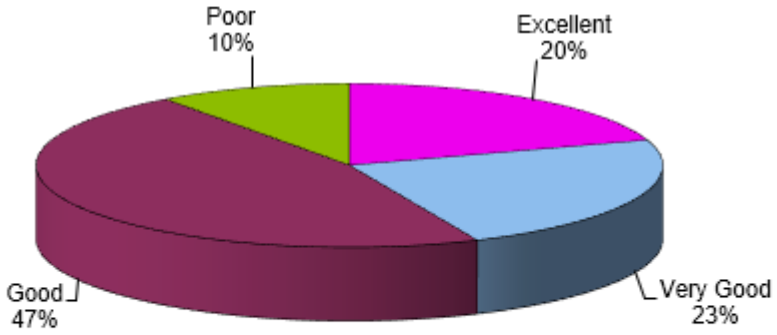


INTERPRETATIONS:

20 percent of employees believe it is exceptional, while 23 percent believe it is very good, and 47 percent believe it is good. Only 10% of respondents are dissatisfied with management.

5. How would you rate the inventory management of the company? *

Excellent	6
Very Good	7
Good	14
Poor	3

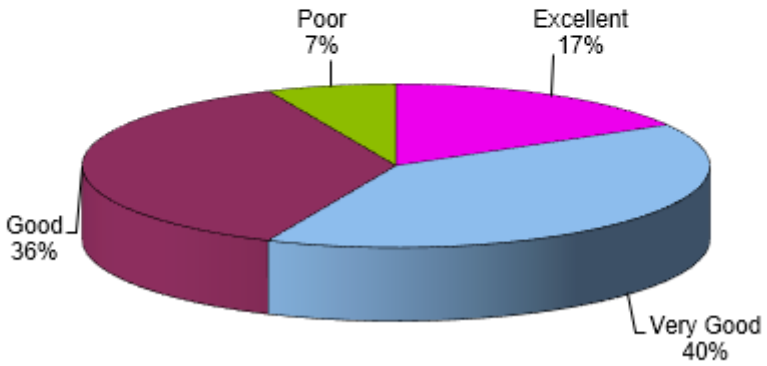


INTERPRETATIONS:

Only 10% of the population are dissatisfied, while the remainder are content.

6. How would you rate the distribution system of the company? *

Excellent	5
Very Good	12
Good	11
Poor	2

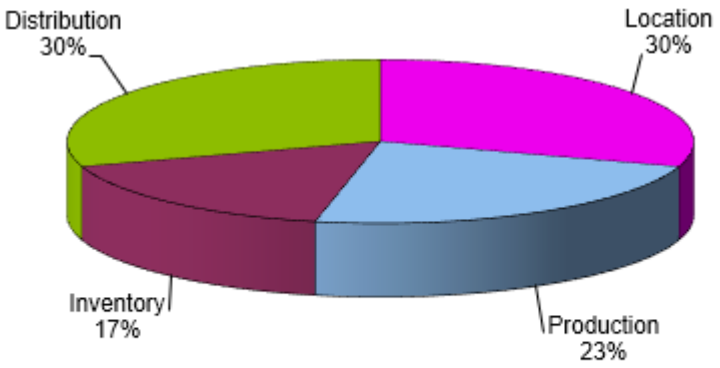


INTERPRETATIONS:

For the finest integrated wholesale and distribution solution, Distribution Systems combines the appropriate expertise with the right platform. 7% of individuals believe the company's distribution method is ineffective.

7. Which among the different activities of the supply chain management do you think the company lacks in?

Location	9
Production	7
Inventory	5
Distribution	9

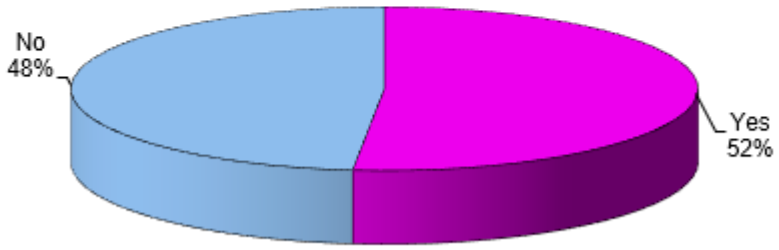


INTERPRETATIONS:

The organization is recognized as the best in the location and distribution management among the four supply chain management activities listed above. The company's inventory management is the worst of the four.

8. Does the distribution system of Philips India Ltd. the same for all its brands?

Yes	16
No	15

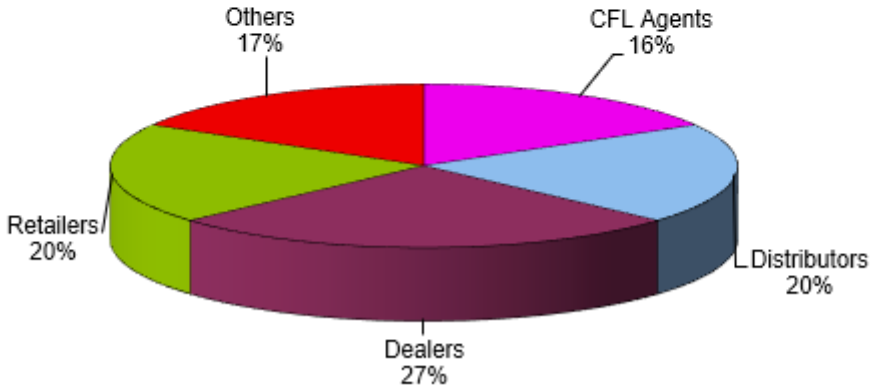


INTERPRETATIONS:

Employees are largely unaware of the company's distribution. They are virtually evenly split between the two possibilities.

9. Who are the intermediaries involved in the distribution system? *

CFL Agents	5
Distributors	6
Dealers	8
Retailers	6
Any Other	5



INTERPRETATIONS:

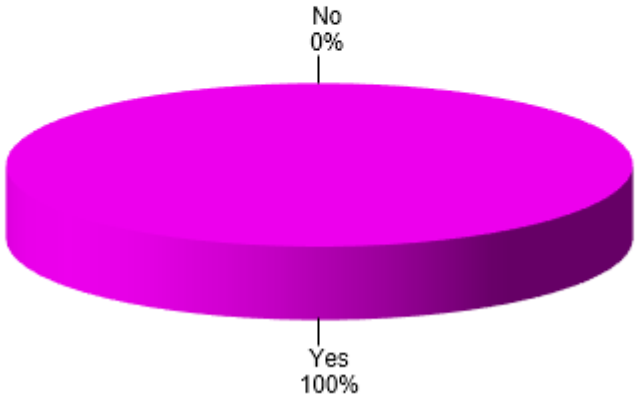
.

In the distribution system, there are a huge number of middlemen. CLF agents, distributors, retailers, and dealers are among them. A large number of dealers, merchants, and distributors work for the firm.

5.2 INTERMEDIARIES FILLED QUESTIONNAIRE ANALYSIS

Q1 Do you keep Philips India Ltd. products with you?

Yes	20
No	0

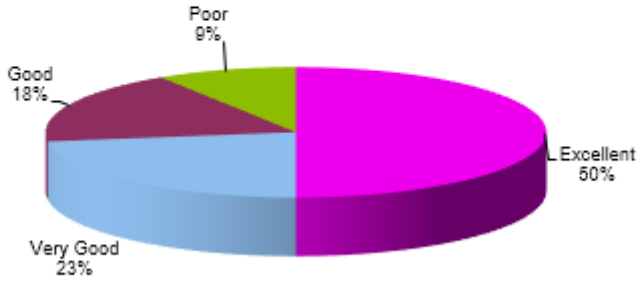


INTERPRETATIONS:

All of the intermediaries stated that Philips India Ltd. is one of the most popular brands among their consumers.

2. How would you rate the distribution system of the company to be? *

Excellent	11
Very Good	5
Good	4
Poor	2

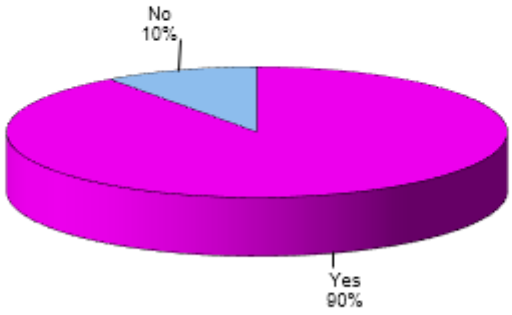


INTERPRETATIONS:

The majority of intermediaries are pleased with Gillette's distribution networks. They believe their services are exceptional.

3. Does the company maintain the minimum inventory level with you? *

Yes	18
No	2

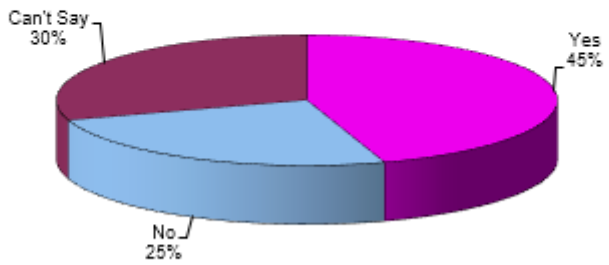


INTERPRETATIONS:

Philips India Ltd. is a company that maintains inventory levels with the majority of its distributors.

4. Do you find the company to be aggressive in its approach towards its supply chain management?

Yes	9
No	5
Can't Say	6

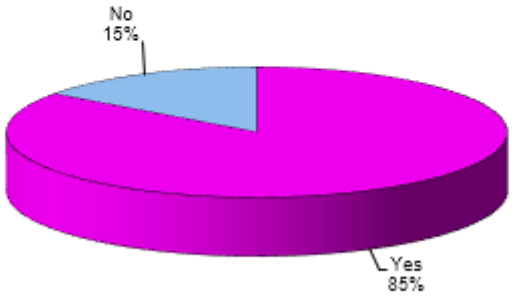


INTERPRETATIONS:

Intermediaries believes Philips India Ltd. might be proactive in its supply chain management strategy.

5. Do you get the orders in time? *

Yes	17
No	3

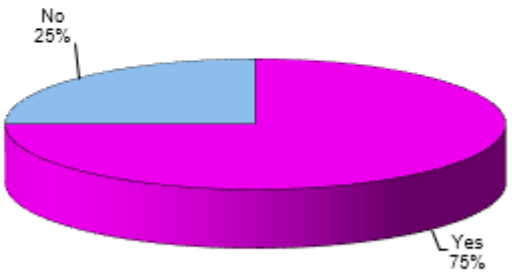


INTERPRETATIONS:

Philips India Ltd. fulfils 85 percent of intermediary orders on schedule. The remaining 15% of intermediaries replied no.

6. Does the company facilitate you for further movement of the products in the market? *

Yes	15
No	5

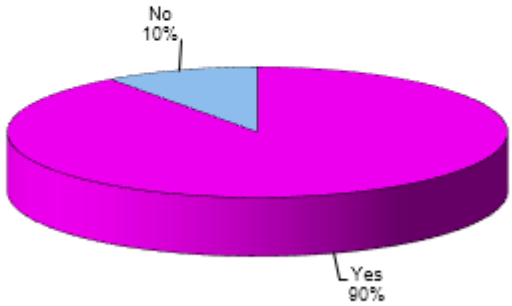


INTERPRETATIONS:

Intermediaries replied 'Yes' because Philips India Ltd. makes it easier for them to transfer items throughout the market, whereas 25% said 'No.'

7. Does the company provides you with extra incentives for pushing the products? *

Yes	18
No	2

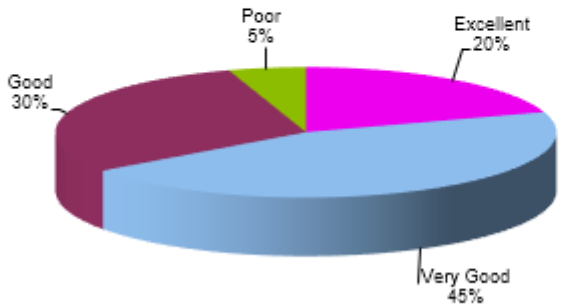


INTERPRETATIONS:

90% of the Intermediaries claimed Philips India Ltd. gives them with additional incentives for promoting the company's products, while 10% answered no.

8. How would you rate the overall supply chain management of Philips? *

Excellent	4
Very Good	9
Good	6
Poor	1

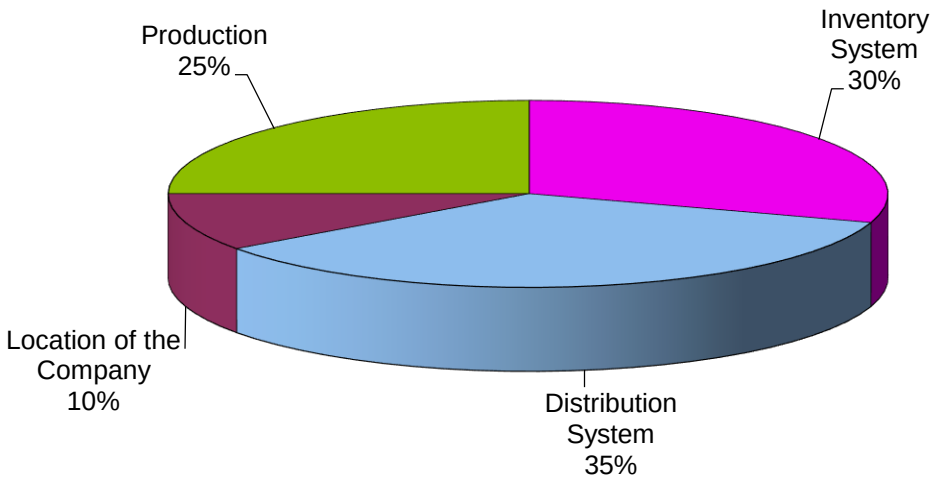


INTERPRETATIONS:

The most of intermediaries (95%) are pleased with Phillips's supply chain management.

9. What are the areas you think the company should work in the field of supply chain to get its products better in the market? *

Inventory System	6
Distribution System	7
Location of the Company	2
Production	5



INTERPRETATIONS:

Intermediaries believe Philips India Ltd.'s 'Distribution System' should work in the field of supply chain to improve its goods' marketability, followed by 30% who said 'Inventory System,' 25% who said 'Production,' and 10% who stated 'Location the Company.'

5.2 Regression analysis

The regression analysis helps us in validating a hypothesis by looking at the p-value in the coefficient table, if the p- value is greater than 0.05 then we accept the null hypotheses, which has been denoted as H_{01} & H_{02}. On the other hand, if the p-value is less than 0.05 then we accept the alternate hypothesis, which has been denoted by H_1 & H_2. Regression analysis contains three table model summary table, ANOVA table, and Coefficient table. In this analysis these tables can be find below the hypotheses

Research Hypothesis

H_{01}- Rating of inventory management of the company does not influence the Distribution system

H_1- Inventory management of the company is influenced by distribution system of the company

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.931556016
R Square	0.86779661
Adjusted R Square	0.854576271
Standard Error	0.296876394
Observations	12

Regression Table I

The regression analysis is helping in understanding the relationship between distribution system & inventory management. In this case the R shows that the variables are 93% predicting the distribution system. The value of R^2 is 0.86. This means inventory management of the company is able to explain 86.78% variation in the dependent variable distribution system of the company.

ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	5.785310734	5.785310734	65.64102564	1.05373E-05			
Residual	10	0.881355932	0.088135593					
Total	11	6.666666667						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.372881356	0.465407804	-0.801192745	0.441640858	-1.409874566	0.664111854	-1.409874566	0.664111854
How would you rate the distribution system of the company?	1.084745763	0.133887577	8.101914937	1.05373E-05	0.78642565	1.383065876	0.78642565	1.383065876

Anova Table I

The ANOVA table explains the relationship between Inventory management and distribution system. This variable explains 5.78 out of 6.66. The model's significance value is less than 5%, indicating that it is a good match for describing the connection between the variables. The information in the table shows that inventory management has a great impact on the distribution system of the company. **The coefficients table shows the regression line that will be formed based on the data that has been analyzed. The significance for social media usage of an individual is below 0.05 and when the p is less than 0.05 that means we reject the null hypothesis and accept the alternative hypothesis.**

The goal of an inventory strategy is to minimize overall inventory costs such as transportation, distribution and inventory carrying, and to maximize revenue for a given service level. The ability to reach an optimal point of both revenue and inventory is dependent upon four basic but dynamic and interdependent.

To reach the goal of providing maximum revenue with minimum needed inventory, a review of each element's current value should be conducted to provide a basis for prioritization.

For instance, in distribution, inventory accuracy is paramount to cost efficiency. To effectively manage inventory, one must transact and track every movement. Likewise, if you don't properly perform the transaction, the material will get lost. Consequently, lost material leads to process delays. As a result, these delays are process inefficiencies. Therefore, these Inventory management inefficiencies result in delays in order processing and shipping.

Research Hypothesis

H_{02}- The location rating does not influence the distribution system of the company.

H_2 - The location rating does influence the distribution system of the company

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.931552
R Square	0.867788
Adjusted R Square	0.853098
Standard Error	0.310087
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5.785310734	5.785310734	65.64102564	1.05373E-05
Residual	10	0.881355932	0.088135593		
Total	11	6.666666667			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.372881356	0.465407804	-0.801192745	0.441640858	-1.409874566	0.664111854	-1.409874566	0.664111854
How would you rate the distribution system of the company?	1.084745763	0.133887577	8.101914937	1.05373E-05	0.78642565	1.383065876	0.78642565	1.383065876

Anova Table II

The ANOVA table explains the relationship between Location and distribution system. This variable explains 5.68 out of 6.54. The model's significance value is less than 5 %, indicating that it is a good match for describing the connection between the variables. The coefficients table shows the regression line that will be formed based on the data that has been analyzed. The information in the table shows that location rating has a great impact on the distribution system of the company. **The significance for location rating of an individual is below 0.05 and when the p is less than 0.05 that means we reject the null hypothesis and accept the alternative hypothesis**

The location of the company is the major factor influencing the supply chain. It can affect the delivery time, cost of delivery and supplying time. If the location of the warehouse of manufacturing plant is far away from the retailers and suppliers, it will cost the company more and the delivery time will eventually increase.

6.1 PHILIPS INDIA'S SUPPLY CHAIN MANAGEMENT OPERATION

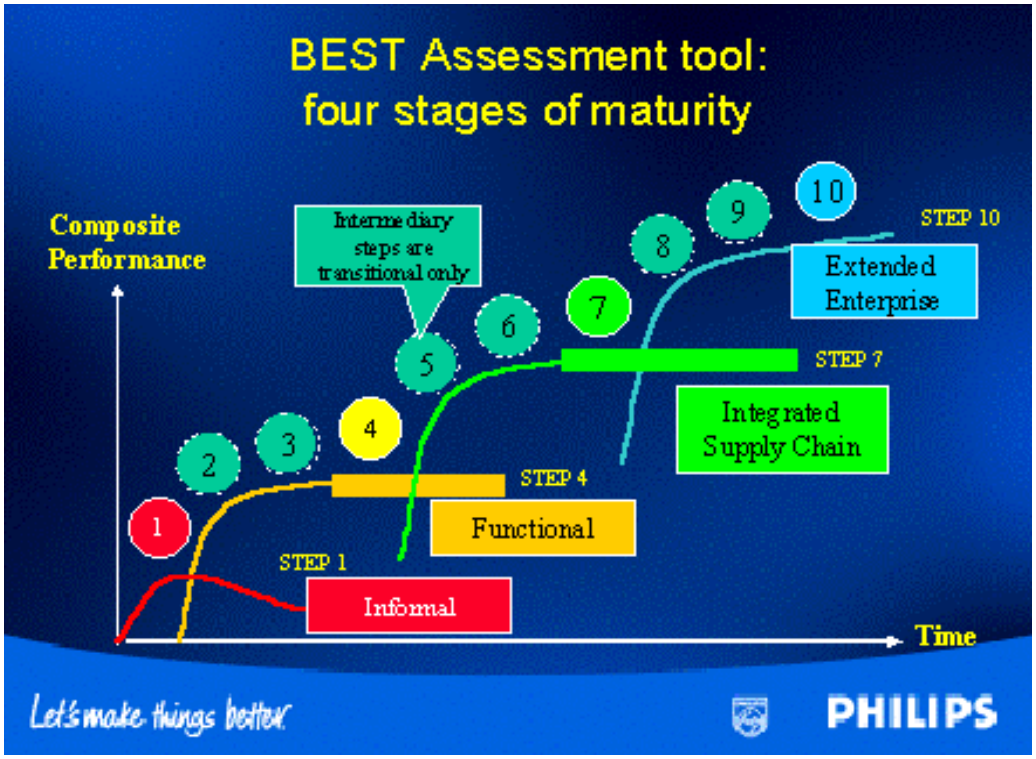


Fig 6.1

PIL analyzed the SCM models of successful companies like Dell Computers and looked at the best SCM approaches from throughout the world. The company employed the Supply Chain Operation Reference (SCOR) SCM model to restructure its supply chain. According to the concept, planning, sourcing, manufacturing, and delivery are the four processes that make up a supply chain.

The performance metrics that support these four tasks are customer service, expenditures, flexibility, and assets. PIL developed a technique for measuring itself against a 'process map,' which it named the ‘maturity grid,' based on this basis. According to this grid, there are four stages of maturity in the life of an organization.

PIL's value chain was broken down into three steps: defining the value, generating the value, and conveying the value. PIL chose to focus on the value creation stage because it thought that even if it had a wonderful product and a well-defined distribution system, it would struggle to attract customers if the product didn't offer any 'value benefit.' Furthermore, because the value creation process included product

development, sourcing, and manufacturing-delivery, PIL could readily use its supply chain efficiency to boost value generation.

The value chain of PIL was broken down into three steps: defining value, creating value, and communicating value. PIL decided to concentrate on the value creation stage because it believed that even if it had a fantastic product and a well-defined distribution structure, it would struggle to attract customers if the product did not provide any 'value benefit.' PIL could also leverage its supply chain efficiency to increase value generation because the value creation process covered product development, sourcing, and manufacturing-delivery.

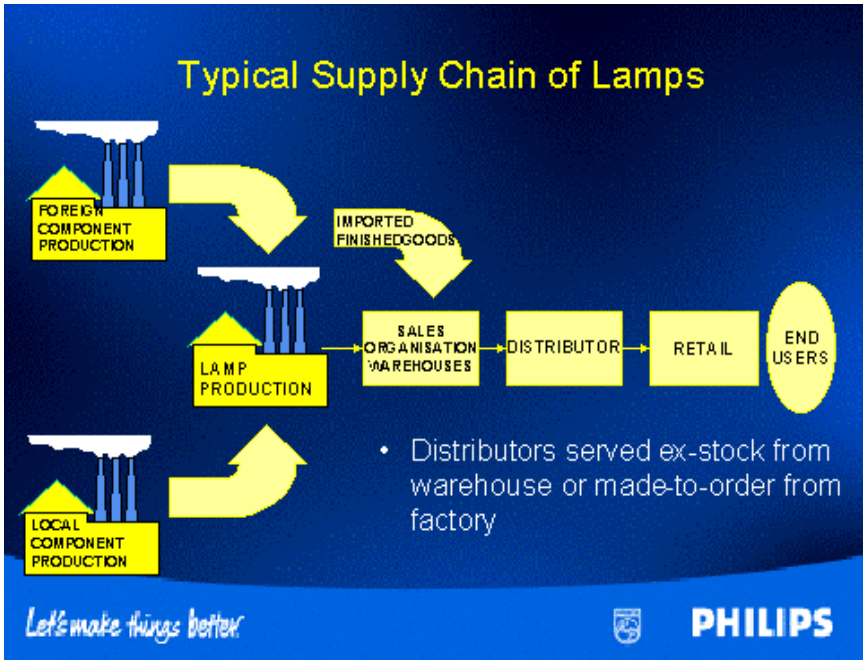


Fig 6.2

Half of the firm's aim had been met by 2001. Production facilities, warehouses, and distribution centers were all investigated as part of the supply chain. PIL replaced the old multi-stage distribution chain (factory-warehouse-coupling plant warehouse-retail shop) with direct dispatch to customers for its lights. This adjustment was made in order to save money through direct dispatching. Despite the fact that major transportation expenses will grow, warehouse, stock financing, and secondary transportation costs will be completely eliminated.

6.2 SUPPLY CHAIN OPERATION REFERENCE (SCOR MODEL)

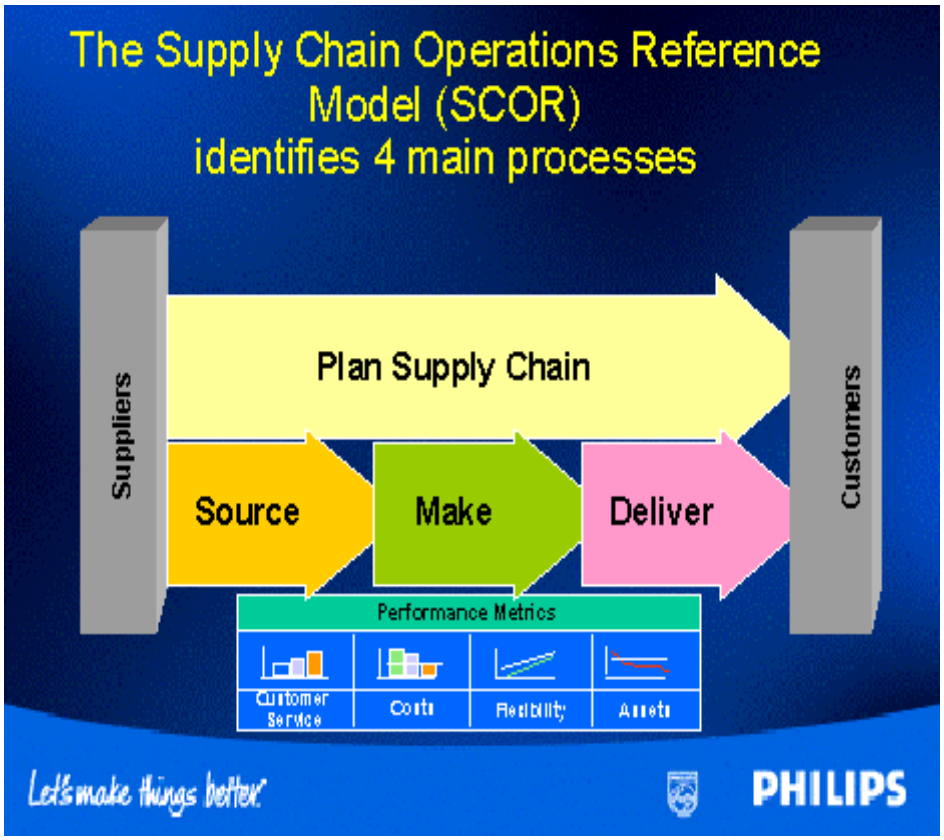


Fig 6.2

Supply Chain Operation Reference (SCOR), an international standard produced by eight companies, is Philips' SCM model. The report includes performance measurements, standards, tools, best practices, reference manuals, and other resources. Philips NV teamed up with them to create its own ‘maturity grid' method. SCOR sees four distinct processes in the supply chain: planning, sourcing, manufacturing, and delivery (see figure alongside). The operations are supported by a series of measurement systems. The top block depicts the planning phase, the second block depicts the source-make-deliver process, and the bottom block depicts measuring instruments.

Each one's planning and execution stages are broken down into 12 parts. It is vital to explain the behaviour pattern of an organisation in its early stages, as well as the pattern for a major corporation with world-class operations. As a result, if this is done through 10 layers (about the number of distinct functions inside the business), with 12

pieces in each, advantages will begin to appear. Of course, the gap between where one is today and where one aspires to go must be assessed on a regular basis.

This calls for strict discipline and meticulous attention to detail. Philips went through this process and looked at best practises from all across the world. Philips' lighting division began benchmarking against Dell since it was an exceptional example of a solid SCM operation. Closer to home, India's fresh flower exports benefit from an excellent SCM system. If flowers and vegetables (with a half-day shelf life) could be carried thousands of miles, Philips reasoned, then other products should be able to as well. There are four primary stages of maturity in the life of an organisation: The informal organisation focuses on procedures and quality systems, but the supply chain is not clearly broken out. Many functions (purchasing, warehousing, marketing, and so on) are linked by the functional organisation. A comprehensive source-make-deliver chain is integrated either in teams or under the direction of the organization's supply chain manager, who is in charge of the entire product flow. As part of the extended enterprise, customers and suppliers are both incorporated into the system. To achieve long-term growth, an informal organization must evolve into a functional organization, then an integrated organization, and lastly an extended enterprise.

CHAPTER-7

CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

Material expenses, including the cost of transportation to the plant, accounted for about 60% of overall production costs, according to the annual assessment of industries, a number that is likely to climb due to rising market competitiveness.

Because materials account for approximately two-thirds of total production costs, even minor price fluctuations might result in considerable savings or losses. Material management, which includes inventory control, is a cost-cutting hotspot that has to be addressed.

SCM developed as a feasible tool to reduce costs and raise manufacturing efficiency for organizations that looked to have exhausted all other alternatives for cost reduction, including increasing production efficiencies and focusing on logistics management. SCM benefits customer service, inventory management, transportation systems, and distribution networks.

In the previous way of conducting business, marketing, distribution, planning, manufacturing, and buying organizations operated independently along the supply chain. There was a lack of coordination due to competing goals, which harmed the chain's overall efficiency. Frequently, the organization lacks a unified, integrated strategy. SCM is a strategic instrument that helps businesses integrate their many functions into a unified entity. It's defined as "a systemic, strategic coordination of traditional business duties within a firm and across companies throughout the supply chain, with the purpose of improving individual firms' and the supply chain's long-term performance."

Our country has a low inventory turnover rate as compared to other industrialized countries. As a result, important expenses such as interest on capital, storage costs, and obsolescence losses are included. Manufacturing businesses make a 10% profit on their production expenses on average. Material costs account for over 70% of entire production expenses, thus even a little reduction would have a significant influence on profit. If material costs are reduced by 3%, which is not difficult, the profit margin

increases from 10% to 12%, and overall profit increases by 21%. Any material cost decrease therefore equates to a revenue increase of more than 20%. As a result, any endeavor to cut material expenses, including the cost of stockholding, is futile.

Given the company's performance, it's reasonable to assume that the material management and inventory control systems are competent. Despite outstanding results, the material manager cannot afford to be complacent because there is so much space for development in such a demanding position. An idle system for one company may not apply to another due to variances in working conditions, goods, and locations.

In the face of rising competition and a decline in the sector, PIL had no choice but to improve its operational efficiency. PIL benefited from enhanced SCM approaches in a number of ways. The things were only handled five times, and the transportation time was cut in half. The operational capital in the first quarter of 2011 was just Rs 200 million, compared to Rs 500 million in 2010. In 2011, supply chain expenses were significantly decreased by 26%. Transportation and storage costs accounted for the majority of the savings. PIL was able to save money on storage because it adopted a direct dispatch system with no grouping centers.

By cutting supply chain expenditures, inventory costs, and getting favorable loan terms, PIL was able to reduce its working capital requirements, improve cash flows, and lessen its interest burden. This strategy also enhanced the availability of commodities on the market, shortening the time between making an order and getting goods.

To stay up with the times, the company has fully automated its inventory control system, utilizing cutting-edge computer systems and database management software packages.

7.2 Recommendations

- Phillips should manufacture all their products in India so that they can be available to the customers whenever they want
- People are not aware about the health care products of Phillips so they should bring some awareness in them through advertising.
- They should give special discounts to their regular customers for brand loyalty
- They should higher some qualified personnel who can bring new ideas and manufacture all the products in India.
- Currently they are not using SAP and ERP so we recommend that they should start using it.
- They should use MPS system which will help them to identify the forecasting factor of each production plan. The MPS indicates the shortage or the excess of the finish goods; it's a kind of forecast through which you can have a finish good picture for a specific Production plan or the requirements of upcoming production.
- In order to prevent stock outs, certain minimum reorder levels should be fixed for all items.
- The ABC classification of inventory should be reviewed periodically to keep pace with the frequent changing electronic market.
- The selective control should be exercised in procurement of stores according to the ABC classification of stores with the view to reduce the inventory of class A while increasing of class C items. This will reduce inventory carrying and ordering cost.
- Investigation and analysis of existing inventory control system has led to the conclusion that material requirement planning system be introduced in the firm for improved control of inventories.

Annexure

Questionnaire-1

What do you think constitutes the supply chain management of the company? *

- Location
- Production
- Inventory
- Distribution

How would you rate the location of the company to be *

- Excellent
- Very Good
- Good
- Poor

How would you rate the production management/operation of the company to be? *

- Excellent
- Very good
- Good
- Poor

How would you rate the inventory management of the company? *

- Excellent
- Very good
- Good
- Poor

How would you rate the distribution system of the company? *

- Excellent
- Very Good
- Good
- Poor

Which among the different activities of the supply chain management do you think the company lacks in? *

- Location
- Production
- Inventory
- Distribution

Does the distribution system of Philips India Ltd. the same for all its brands? *

- Yes
- No

Who are the intermediaries involved in the distribution system? *

- CFL Agents
- Distributors
- Dealers
- Retailers
- Any Other

Questionnaire-2

PHILIPS

Study On Phillips India Ltd.

For the Intermediaries

1. Do you keep Philips India Ltd. product with you? *

- Yes
- No

2. How would you rate the distribution system of the company to be? *

- Excellent
- Very Good
- Good

3. Does the company maintain the minimum inventory level with you? *

- ◯ Yes
- ◯ No

4. Do you find the company to be aggressive in its approach towards its supply chain management? *

- ◯ Yes
- ◯ No
- ◯ Can't say

5. Do you get the orders in time? *

- ◯ Yes
- ◯ No

6. Does the company facilitate you for further movement of the products in the market? *

- Yes
- No

7. Does the company provides you with extra incentives for pushing the products? *

- Yes
- No

8. How would you rate the overall supply chain management of Philips? *

- Excellent
- Very good
- Good
- Poor

9. What are the areas you think the company should work in the field of supply chain to get its * products better in the market?

- Inventory System
- Distribution System
- Location of the Company
- Production

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