



“A STUDY ON SUPPLY CHAIN MANAGEMENT OF CHEMICAL INDUSTRY”

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ABSTRACT

The chemical industries play a significant role in the global discussion of the reasons behind climate change and the opposite social impact. There is a need to understand as well as find ways to improve the sustainability aspects of the supply chain in the chemical industry. The chemical industry has experienced one of the worst economic storms in recent history. In their bid to go through an unprecedented long economic downturn and survive the new economic era, many chemical companies have turned to reorganizing their supply chains and renewing their operations. The organization uses methods and resources for this purpose.

Key words: Supply chain management, sales, inventory.

INTRODUCTION

A supply chain is a network of features and distribution options that perform the task of purchasing material, converting these materials into intermediate and finished products, and distribution these finished product to customers. Although supply chain exists in both service and manufacturing organization, the complexity of the chain can vary from industry to industry and pay to pay. Supply chain management is the oversight of materials, information and finances as they go from the consumer process to the manufacturer to the wholesaler, from the customer to the retailer. Supply chain management involves the integration and coordination of these trends between the two companies. The organization is a cross-function attagam incorporating the management of the content processing processes.

LITERATURE REVIEW

1. Vidal and Goetschalckx (2001) model could be a non-convex improvement model with a linear objective perform and each linear and additive constraints to represent this drawback. the answer methodology could be a heuristic algorithmic program that decomposes the model into a group of applied math sub-problems, and so iterates till associate optimum or a satisfactory answer is found. The authors evaluated the heuristic with take a look at issues, however no specific business was known as a basis within the creation of the machine examples

2.Hadjinicola and Kumar (2002) assumed that production prices vary linearly with product attributes and allowed for exchange rates, inventory prices and transportation prices in their analysis. However, the model doesn't embrace the provision segments of the provision chain—it considers solely the end-product producing location for a collection of markets. The authors failed to mention associate degree industry application during this paper.

3.Canel and Khumawala (1997) extended the IFLP model by including multiple periods so that timing of location changes can be more carefully evaluated. Later, Canel and Khumawala (2001) focused on heuristic procedures to solve the IFLP problem. Canel and Das (2002) extend this research line with a model that integrates manufacturing and marketing decisions in a global context.

4.A. Chande et al., July (2015) described an integrated framework for inventory management and developed an efficient algorithm for the optimization problem. A suitable architecture for the application of RFID technology to realize potential benefits has been suggested.

5.J. Liu et al., April (2018) developed a common integrated management system called Workflow supported inner Supply Chain Management system (WSCM) for Nanjing Jin Cheng Motor Cycle Corporation Limited and most of its suppliers to manage their inner processes.

6. Rajendra Kumar Shukla et al. February (2017) International Journal of Engineering Science and Technology (IJEST) SCM is linked with the emergence of the network organization, which can lead to a complex web of linkages to be coordinated and managed. This can imply difficulties which include lack of common purpose, multiple and hidden goals, power imbalances, culture and procedures, conflict over autonomy and accountability.

Research Objective

- 1.To study the supply chain of the Atul ltd.
- 2.To ensure continues supply of financials, sales and inventories to the production.
- 3.To keep material cost under control, to keep low cost of production.

Research Methodology

➤ Research Design

Descriptive research design is appropriate for this study. A detail information about the present and past situation of the company is available in descriptive research.

➤ Source of Data

The main source of information in my project will be based on secondary data like facts, figures, graphs collected from internet, which will be analyzed and summarized in the form of this project report.

Data collection method:

The data collected from Supply chain management date department

Primary data:

The source of primary data is actual work experience Atul ltd. Studying company profile, annual report of supply chain management of Atul ltd.

Secondary data:

The source of collecting secondary data are annual report of company, website, and books.

SOURCES OF THE DATA

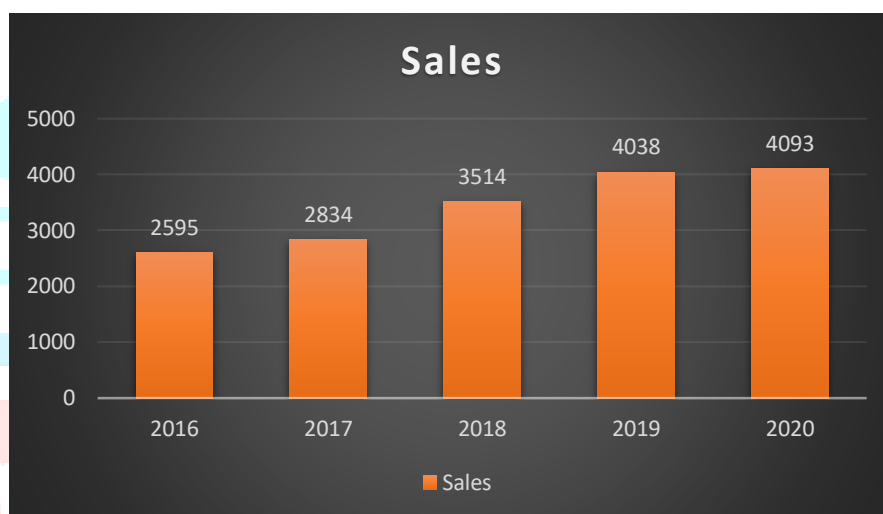
- Online websites
- Company website
- Company employees
-

DATA ANALYSIS

Sales:

Year	Sales (in crore Rs.)
2016	2595
2017	2834
2018	3514
2019	4038
2020	4093

Table no 1.1



Graph no 1.1

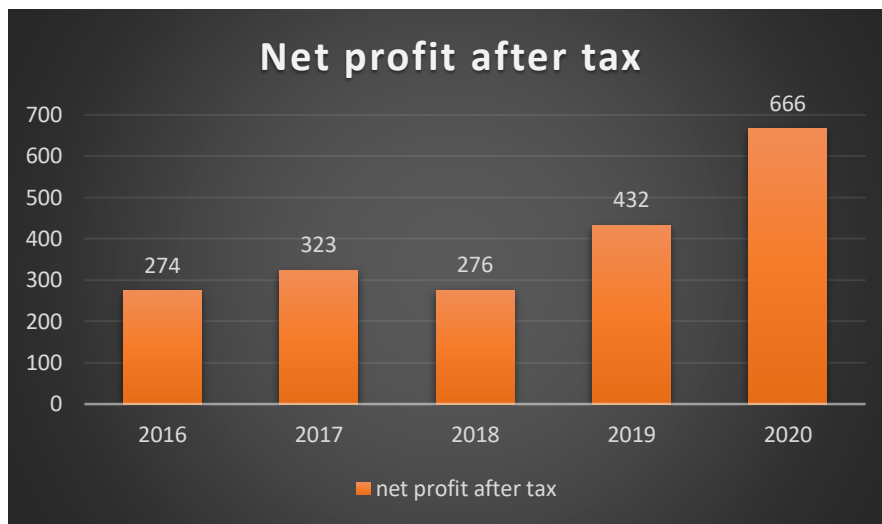
Interpretation:

The sales of the product of Atul Limited increased in every year because the demand of the product was increasing day by day and the cost of producing the product remained the same every year. In 2016, the sales were 2595 that increased by almost 300 points in 2017 and went to 3514 in 2018 and also increased to 4038 and 4093 in 2019 and 2020.

Net profit after tax:

Year	Net profit after tax (in crore Rs.)
2016	274
2017	323
2018	276
2019	432
2020	666

Table no 1.2



Graph no 1.2

Interpretation:

Net profit after tax means how much money came into the hand of company after deducting the all types of expenses of the company and liability. The net profit of the company in 2016 was 274 and in 2017, It was 323. Thereafter decreased with almost 40 points in 2018 and again went up in 2019 and 2020 to 432 and 666 respectively.

Inventory:

Year	Inventory (in crore Rs.)
2016	428
2017	419
2018	411
2019	512
2020	503

Table no 1.3



Graph no 1.3

Interpretation:

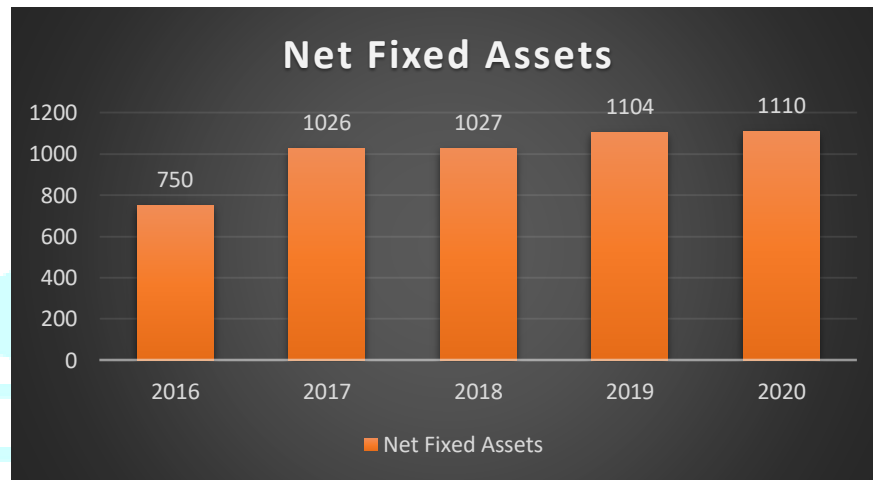
Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to affect the sale. cost comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventory to the present location and condition. Cost includes the reclassification from equity of any gains or losses on qualifying cash flow hedges relating to purchases of raw material but excludes borrowing costs. Covid-19 pandemic inventory increased. In 2016,

the was with 428 and remained around almost 400 in 2017 and 2018. Then rose up to 512 in 2019 and declined by 9 points in 2020.

Net fixed Assets:

Year	Net Fixed Assets (in crore Rs.)
2016	750
2017	1026
2018	1027
2019	1104
2020	1110

Table no 1.4



Graph no 1.4

Interpretation:

Net fixed assets are stated at cost of acquisition or construction less accumulated depreciation/amortisation and impairment losses. machinery spares which can be used only in connection with a particular item of fixed assets and the use of which is irregular, are capital at cost. in 2016 the net fixed assets 750 that increased by 2017 the 1026 and increased 2018,2019,2020 increased 1110 point.

Trade receivable:

Year	Trade Receivable (in crore rs.)
2016	441
2017	519
2018	273
2019	698
2020	720

Table no 1.5



Graph no 1.5

Interpretation:

Trade receivables are recognised when the right to consideration becomes unconditional. These assets are held at amortised cost, using the effective interest rate (EIR) method where applicable, less provision for impairment based on expected credit loss. In 2016, The figure of 2016 was 441 and increased to almost 50 points up in 2017 and decreased to almost 300 points in 2018 and rose up to 698 and 720 in 2019 and 2020.

Finding

- Share Capital remains constant throughout the year.
- Reserve and Surplus has increased.
- Secure loan and unsecured loan have been reduced though there is a slight increase in year 2020.
- Deferred Tax liability has increased year by year.
- Investment of the company has risen this year.
- Company's current assets and liabilities also increasing with the year passing.
- Sales turnover of the company is increasing.
- Fixed and current asset turnover has been raised.
- Working capital has been increased with the passing year which means the company has able to generated more sales.
- Moderate increase has been recorded in capital employed turnover ratio.
- Debt has been reduced as compared with owner capital.
Proprietary ratio has slightly risen.

Limitation of the study

- The Study is limited to five years data only.
- The Study is purely based on secondary data.
- The data has been collected through the company's website only.
- The report is purely based on supply chain management of the Atul Private Limited.

Conclusion

- From this study it can be concluded that the organization is efficient in respect of their systematic utilization of their resource.
- Based on the figure of financial ratio of Atul Ltd, we can conclude that the company has continued to maintain its financial soundness and would expect to earn more profit margin for their shareholder.
- The financial position of the Atul Ltd in comparison with their competitor, is very good.
- The Company has high efficiency to receive cash faster, due to more liquidity. Hence the firm should not go for working capital loan.

References

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