

DISSERTATION PROJECT REPORT

BACHELOR OF BUSINESS ADMINISTRATION DEGREE

WAREHOUSE OPERATIONS AND SUPPLY CHAIN

AT SUDHARSHAN CHEMICAL INT LTD

SUBMITTED BY:

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GALGOTIAS UNIVERSITY

SUBMITTED ON:

March 2020

UNDER GUIDANCE OF:

Ashok kumar

Professor

Galgotias University



Certificate from Summer Internship Project Guides

This is to certify that **Mr. Ramneek Singh**, a student of the **Bachelor of Business Administration of Logistics & Supply Chain Management** has worked under my guidance and supervision. This PBL Report has the requisite standard and to the best of my knowledge no part of it has been reproduced from any other s project, monograph, report or book.

It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the Program based learning Report only for the purpose it is submitted to the Program Based Learning Report Examination Committee for evaluation of Program Based Learning Report

Prof. Ashok
Kumar Faculty
Mentor

School of Business- Galgotias University Date:

DECLARATION

I the undersigned solemnly declare that the project report “**PACKAGING AND WAREHOUSE OPERATIONS** ” is based on my own work carried out during the course of our study under the supervision of Professor Ashok Kumar

I assert the statements made and conclusions drawn are an outcome of my research work. I further certify that:

1. The work contained in the report is original and has been done by me under the general supervision of my supervisor.
2. The work has not been submitted to any other Institution for any other degree/ diploma/certificate in this university or any other University of India or abroad.
3. We have followed the guidelines provided by the university in writing the report.
4. Whenever we have used materials (data, theoretical analysis, and text) from other sources, we have given due credit to them in the text of the report and giving their details in the reference.

Ramneek Singh

18SLAM1010006

ACKNOWLEDGEMENTS

I would like to thank our Program chair **Mr. Ashok Kumar Sharma**, for supporting us throughout the program and giving us the opportunity to work with “Sudarshan Chemicals Industries Limited” and understand its warehouse and operations at Swarup Nagar warehouse.

Furthermore, I would like to thank Mr. Naveen Arya and Prem Sir our Trainer for guiding and helping us to gain knowledge on “Warehouse operations at Sudarshan” and complete the program successfully.

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Company Profile : Sudarshan Chemical Industries

Sudarshan Chemical Industries company was incorporated on February 19, 1951 at Pune as a private limited company and converted into a public limited company on December 31, 1974.

Sudarshan Chemical Industries is owned by the Rathi group of companies and accounts for 70% of the Rathi group sales revenue each year. Sudarshan's colour and effect pigment business is the flagship of the group, contributing 67% of Sudarshan's group turnover, \$85 million.

The company makes all its products in-house on its own production plants in Roha and Mahad, in the Maharashtra state of India. Its extensive range of products includes organic and inorganic pigments, mica-based effect pigments, chemical intermediates and pesticides.

They have a continuous R&D programme, with over 100 technologists working on new and customised solutions.

It was the first chemical company in India to be awarded the ISO 9001 certificate in 1993 and continuously evolve and improve itself throughout to maintain high quality standards at every level of the company. It is also accredited with ISO 14001, ISO 18000 and ISO 17025 international quality standards.

In order to improve the customer service, they have implemented many planning tools like SAP and CRM that connect our factories, branch offices and depots. Supply chain solutions are currently being implemented to further increase the value of their goods.

Product range of the company includes: Colour product

- Plastics
- Industrial coatings
- Decorative paints
- Powder castings
- Liquid inks
- Offset inks
- Textile

- Cosmetics

Effect product

- Industrial coatings
- Powder castings
- Offset inks
- Textile
- Cosmetics
- Architectural coatings
- Automotive coatings
- Leather coatings
- Seed coatings
- Bead coatings

Achievements/ recognition:**Certification:**

- ISO 9001
- ISO 17025:2005
- ISO 14001
- ISO 18001: OHSAS
- In 2012 Sudarshan got 5 Star safety ranking from British Safety Council
Sudarshan got Award of Sword of Honour from British Safety Council

GREEN INITIATIVE:

Members are aware that the Company had started a sustainability initiative with the aim of going green and minimizing impact on the environment. Like the previous year, Electronic copies of the Annual Report 2014–15 and Notice of the 64th AGM are being sent to all Members whose email addresses are registered with the Company / Depository Participant(s). For Members who have not registered their email addresses, physical copies of the Annual Report 2014–15 and the Notice of the 64th AGM are sent in the permitted mode. Members requiring physical copies can send a request to the Company Secretary.

The Company is providing remote e-voting facility to all Members to enable them to cast their votes electronically on all resolutions set forth in the Notice of the AGM. This is pursuant to Section 108 of the Companies Act, 2013 and Rule 20 of the Companies (Management and Administration) Rules, 2015. The instructions for remote e-voting is provided in the Notice of the AGM.

RISK MANAGEMENT:

Risks are events, situations or circumstances which may negatively impact the Company's business. The Company is adopting a formal approach to risk management in such a way that key risks are managed within a unitary framework. In a dynamic and volatile environment, all companies face uncertainty, and the challenge for your Company is to determine how much uncertainty to accept as it strives to grow stakeholder value. The Board of Directors on the recommendation of the Risk Management Committee has approved a Risk Management Policy providing guidelines to effectively identify and deal with risks contributing to uncertainty, balancing risk and opportunity and enhancing the capacity to build stakeholders' value.

The Risk Management Committee has identified specific risks which may critically impact the operations of the Company and has recommended suitable measures to counter them so that the impact is minimized. The Company also has insurance policies in place to reduce adverse impact of any untoward incidents which are critical in nature

ENVIRONMENT, HEALTH, SAFETY (EHS) AND POLLUTION:

Environment, Health and Safety continues to be a major focus area for our Company in all its operations across the organization. As in earlier years, the Company maintains "Zero lost time accident at the workplace" as its long-term strategic goal. There was no reportable accident during the year across the organization. There was also no occupational health illness cases or major emergencies across the Organization. This has been achieved through highest commitment from the top management, supported by all levels of workforce across the Organization. Behaviour Based Safety, Safety training, Process Safety Management, Hazard Identification and Rectification Near mis identification & analysis and Contractor Safety were the key focus areas. During the year in all the sites model "EHS" systems and practices were implemented by instilling various global safety practices including HAZOP, Risk Assessment, Layer of Protection Analysis (LOPA), Process Safety Management, Visual management, pre-start-up reviews and rigorous training to employees and contract workers. To showcase our good work to all our internal as well as external stake holders we have started "EHS Magazine" and published first Edition of our quarterly Magazine this year with a strong belief that facing the challenges together yield better and sustainable results.

During the year, the Company continued to focus on Environment management by further strengthening the effluent treatment facility at Roha and Mahad. The Company is in the process of exploring few more technologies in effluent treatment to further strengthen the Pollution abatement Plan.

Utility management and energy conservation initiatives have been given renewed focus in all manufacturing units. This has helped in improving the "Greening Index" of the Company.

All units of our Company are certified for OHSAS–18001 and ISO–14001, and awarded rating of five star from British Safety Council. Standards are regularly reviewed at various levels and systems aligned with the Company's Process Management. As a strategic long term goal we have planned to implement "Responsible Care initiatives" and preparing for certification audits in year 2015–16. Product stewardship, transportation and warehouse safety continued to be strengthened by providing resources, standardization to match benchmark practices, training to drivers and warehouse workers for safe transportation, storage and loading / unloading and emergency plan for road accidents. As part of the same, Company has become member of NICER GLOBE a ICC initiative in coordination with major chemical industries.

The Company's efforts and performance in the area of "EHS" have been recognized across the manufacturing units, through receipt of several awards. These awards include:

- National Safety Council – Maharashtra Chapter Safety Award for Roha unit.
- DMAI Award for Excellent Performance in the field of Pollution Control by a Large-Scale Unit.
- DMAI Second for Excellent Performance in the field of Safety & Hazards Control by a Large-Scale Unit.
- "Certificate of Appreciation" from National Safety Council in Nation Safety Award in manufacturing sector: "Group B".

RESEARCH AND DEVELOPMENT:

The Company recognizes the need to have well equipped R & D Facilities to meet customer requirements and developing cutting edge products. Members are aware that the Company has spruced up its R & D facilities at Ambadvet (Sutarwadi), Pune and Roha, Dist. Raigad. The Company has spent approx. Rs. 177 million during the year under report on research and development. The Ministry of Science and Technology, New Delhi, on behalf of Government of India vide letter dated 2nd April, 2012 has recognized our in-house R & D facilities for a period of 4 years i.e., up to 31st March, 2016.

Relevance & Significance Of The Internship

Relevance of the study:

- It provides a better understanding of the importance of elements such as display, security etc. in case of operations.
- It gives an idea as to how all areas of a business integrate to efficiently perform one single function.
- It relates the learning of the course to real life scenario, mainly the roles played by the logistic and supply system in an organization.
- It provides an insight into the order fulfilment process at warehouse and other areas of supply chain

Significance of the Study:

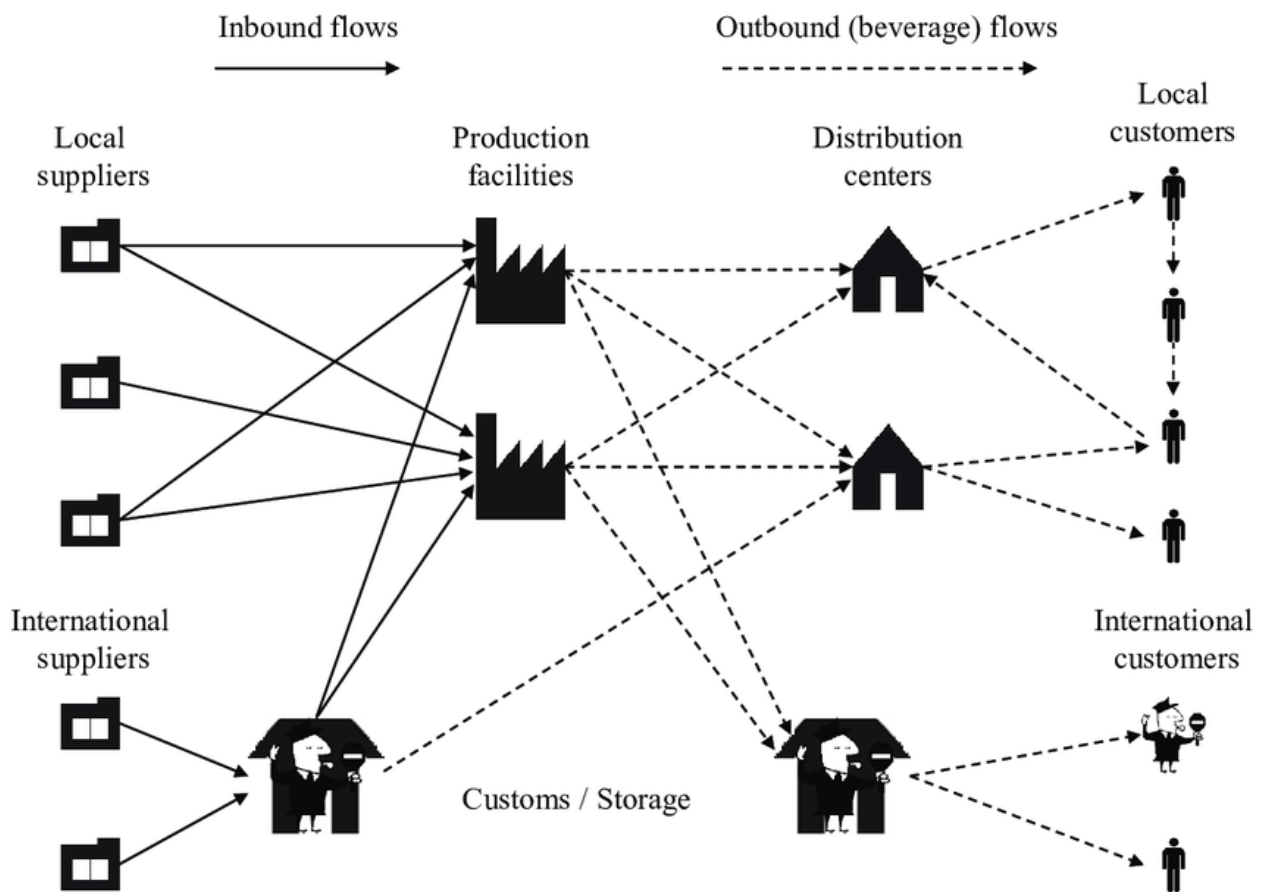
The study is significant because order fulfilment process makes the basis of efficient working of any organization, be it product oriented, service oriented or a combination of both. The view point that a company can remain profitable even after following traditional business practices and following a set number and level of standards. The fact that ground reality and implementation of complex theoretical ideas and strategies have a long way to go and are different to a great extent.

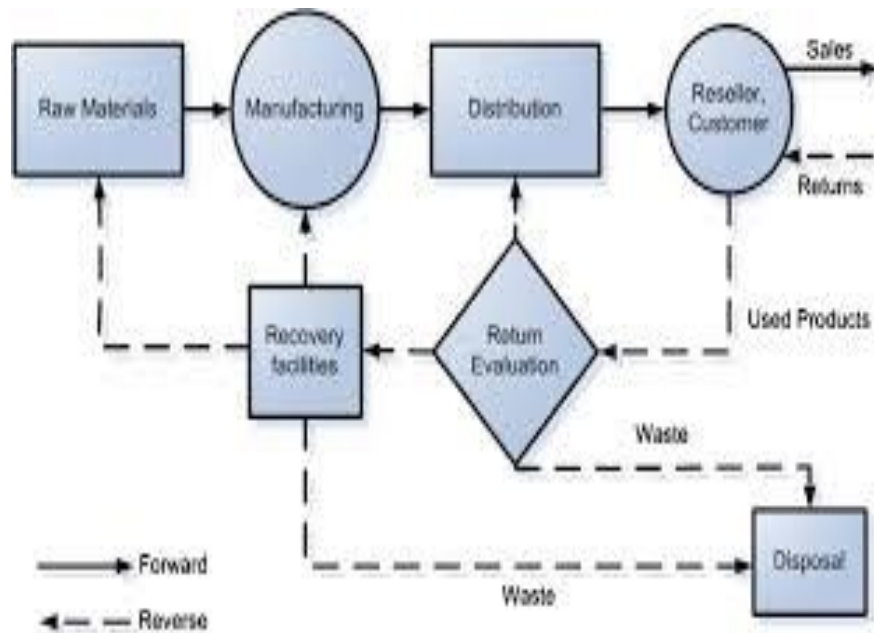
PURPOSE AND OBJECTIVE OF THE STUDY

The purpose of the study i.e. the reason for the study is to understand the order fulfilment process, to analyze the various steps taken to ensure that the right order reached the right customer at the right time, in the right quantity and in the right condition.

The objective of the study is to observe and analyze the order fulfilment process at Sudarshan so as to understand the features incorporated by the organization, plus understand the key areas where improvement can be made so as to reduces costs and order processing lead times.

THE SUPPLY CHAIN MODEL AT SUDARSHAN





REVERSE SUPPLY CHAIN FLOW SUDHARSHAN

WAREHOUSE PROCESSES

Improvement comes from simplifying processes and procedures. These processes need to be aligned and working optimally if we are to improve efficiency and, as a result, reduce cost within the warehouse operation.

Detailed process documents need to be produced and made available to all employees. These need to be continually reviewed and updated. According to WERC (2010) companies who exhibit good to best practice processes define and publish process descriptions and assign ownership of the processes to responsible individuals. Supplementing written instructions with photographs also improves understanding.

Although warehouses differ in terms of size, type, function, ownership and location the fundamental processes remain.

These processes include pre-receipt, receiving, put-away, storage, picking, replenishment, value-adding services and dispatch.

Warehouse Processes: Receiving and Put-away

By ensuring that the correct processes are in place and operating optimally, companies can not only improve accuracy and efficiency but also take advantage of the new technology available.

Figure3 shows each main warehouse activity as a percentage of cost, emphasizing the importance of the pick, pack and dispatch operation. These figures will vary significantly depending on the type of operation.

For example, companies which are under pressure to speed up throughput are likely to use concepts such as cross docking, thus reducing the amount of time spent on put away, picking and retrieval.

The procedure followed by Sudarshan are quite traditional in nature and cross docking and JIT strategies are not being put in use as such. Not being an e-commerce business and also capturing a big market share in the pigments industry the quality is promised and the warehousing operations are kept traditional.

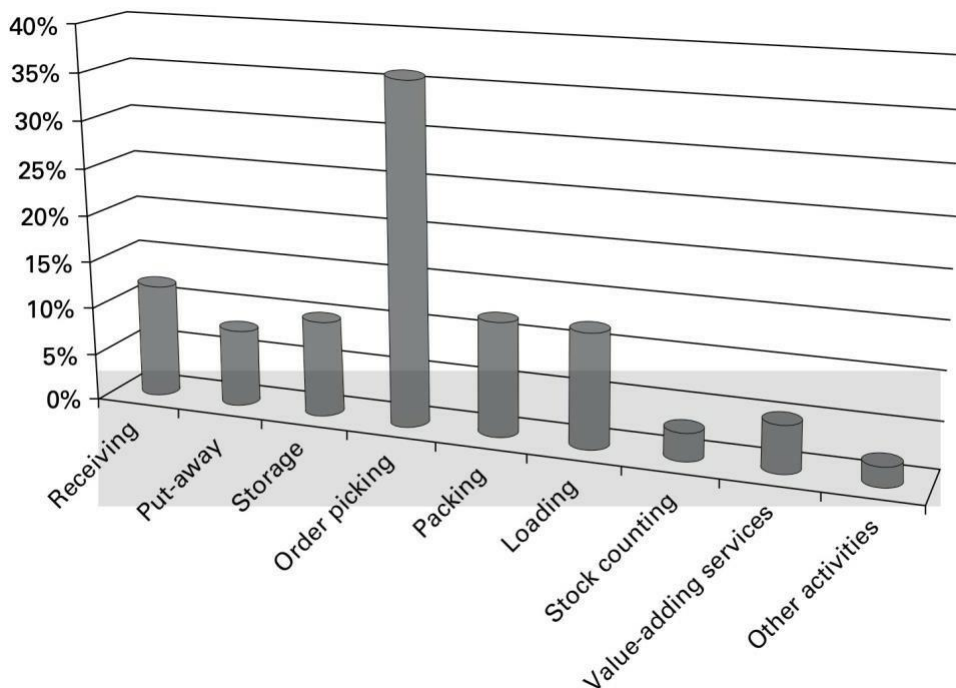


FIGURE 3-Warehouse activities as a percentage of total cost

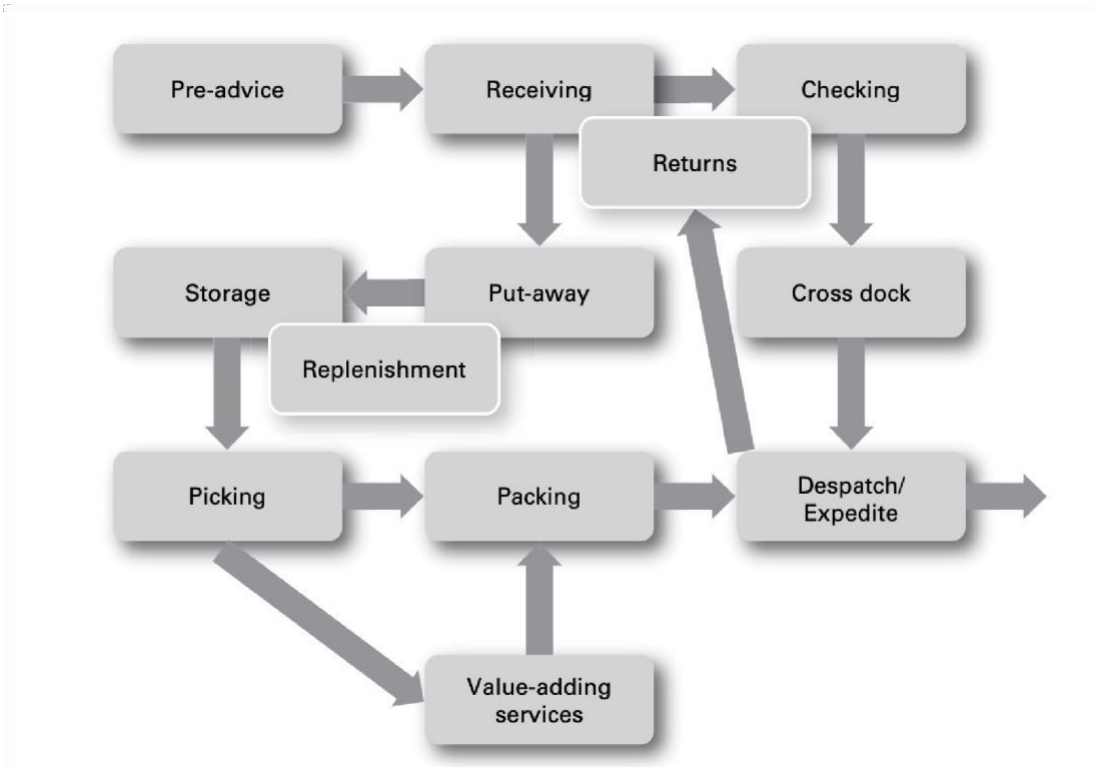


FIGURE 4: Warehouse processes

The main activities mentioned above are shown in Figure 2 together with their relationships.

Receiving :

Receiving, goods-in or in-handling is a crucial process within the warehouse. Ensuring that the correct product has been received in the right quantity and in the right condition at the right time is one of the mainstays of the warehouse operation.

These elements are often termed supplier compliance.

However, it is my contention that once goods have arrived at the warehouse it is usually too late to rectify most receiving issues. I believe there are many steps that need to be taken before the actual act of receiving takes place.

When goods arrive at Sudarshan they are checked with the bill of lading to ensure all items are present.

Inhandling:

One of the main challenges for a warehouse manager is to match labor hours with work content. Handling a product, the least amount of time possible (labor touch points) leads to reduced labor hours and as a consequence, reduced cost. In handling makes up approximately 20 per cent of the total direct labor cost within a retail warehouse.

The warehouse lacks Material handling equipment such as trollies, forklifts etc. and traditional method of picking, lifting the material by the labor is practiced.

I enquired about the same and asked if the efficiency of the overall business reduces or not, and I also recorded the time and it does take a lot of time and touch points but the labor is quite cheap in the area and also the warehouse infrastructure is quite behind the time and company is waiting to be shifted in the newly acquired warehouse in the other location within Delhi and here the equipment will be there as the infrastructure would be more supportive for the use of equipment and hence the process cost and time will be reduced after the new infrastructure is acquired.

Preparation:

Prior to the actual receipt a number of processes need to take place. The first step is to ensure that supply is as per the demand and stock requirement in the regional distribution deliver into the warehouse when. The order has to be placed prior to 4 days before the desired date of delivery by the buyer this time gap is the general gap which might increase if the stock isn't there and shipment from the manufacturing unit due for the stock replenishment. The customer order is tried to be fulfilled despite of all odds if one fulfillment center is low in inventory the order is pass on to the other regional warehouse and from there the delivery is done or if none of the distribution centers have less inventory the customer is requested to wait for a few more days.

In such kind of situations, the company's reputation plays a huge role, and thus the image does not get degraded as Sudarshan stands for its reliability and resilience.

Offloading:

On arrival, the vehicle details need to be checked against the booking reference and the vehicle allocated a loading bay or location in the yard. Any vehicle seals need to be checked against the delivery paperwork.

Checking:

Once the goods are offloaded, you need to decide whether they need to be checked before put-away. The ideal scenario is to move inbound goods directly from the loading bay to the storage area or dispatch area if goods are cross docked. Usually there is no such need of cross docking at Sudarshan except in a few cases wherein the order has been kept pending for a long time due to lesser inventory.

Once the products were checked against the BoL they were sent in the warehouse and kept in the respective SKUs.

If there is any deviation or there is any damage during the transit the due procedures take place.

Incase of damaged goods during transit the damage quantity and product is written off for the insurance claims and books keeping, and incase of any deviation in quantity the books are rectified from both the ends.

Recording:

Depending on the product, there could be a requirement to record more than just the standard data such as product code, description and quantity on arrival. Other information could include batch or lot numbers and serial numbers. Barcode scanning is there as the infrastructure at the given isn't huge and inventory can easily be maintained. Also, this traditional warehouse keeping is labor friendly and given the low volume deviation in sales in comparison to the e-commerce businesses traditional warehouse keeping is going well for Sudarshan.

I am a firm believer of the fact that everything which is the market, shouldn't be implemented, unless it affects the profitability on a huge plus scale.

SAP is the used at Sudarshan as the integrated software and documentation and record keeping is done with strict supervision. And also, each and every process is supervised in real time in terms of data and physically at the ground operations as thus maintaining the required standards and reducing wastages.

Put Away:

Many of today's WMSs allocate product locations in advance and instruct the operator as to where to place the goods. This can be directly to the dispatch area if the product is to be cross docked to the pick face as a form of replenishment or to a reserve or bulk-storage location.

Here the process was done manually instead of the automated WMS allocation the process is under the supervision of the supervisor.

Order Picking:

In order to be productive and efficient in the picking process, a great deal of preparation needs to take place. This includes having a comprehensive understanding of the products and their sales patterns and the data available to produce ABC analyses.

Placing products in the most appropriate location reduces travel distances and strain on operatives and as a consequence leads to improved productivity and overall cost reduction.

According to OPS (2009) the 'Ten Commandments of picking' are as follows:

- . Design for flexibility and scalability – things change – build for today, design for the future.
- . Keep pickers picking... not waiting or undertaking other tasks such as carton erection, packing, labelling, etc.
- . Minimize travel.

- . Minimize product touches. If you have expert pickers you shouldn't need to check their work.
 - . Never let pickers arrive at an empty location.
- . Measure, measure, measure
 - . Pick logically, slot intelligently.
- . Pick accurately – get it right first time.
 - . Continue to learn and explore.
 - . Advocate continuous improvement.

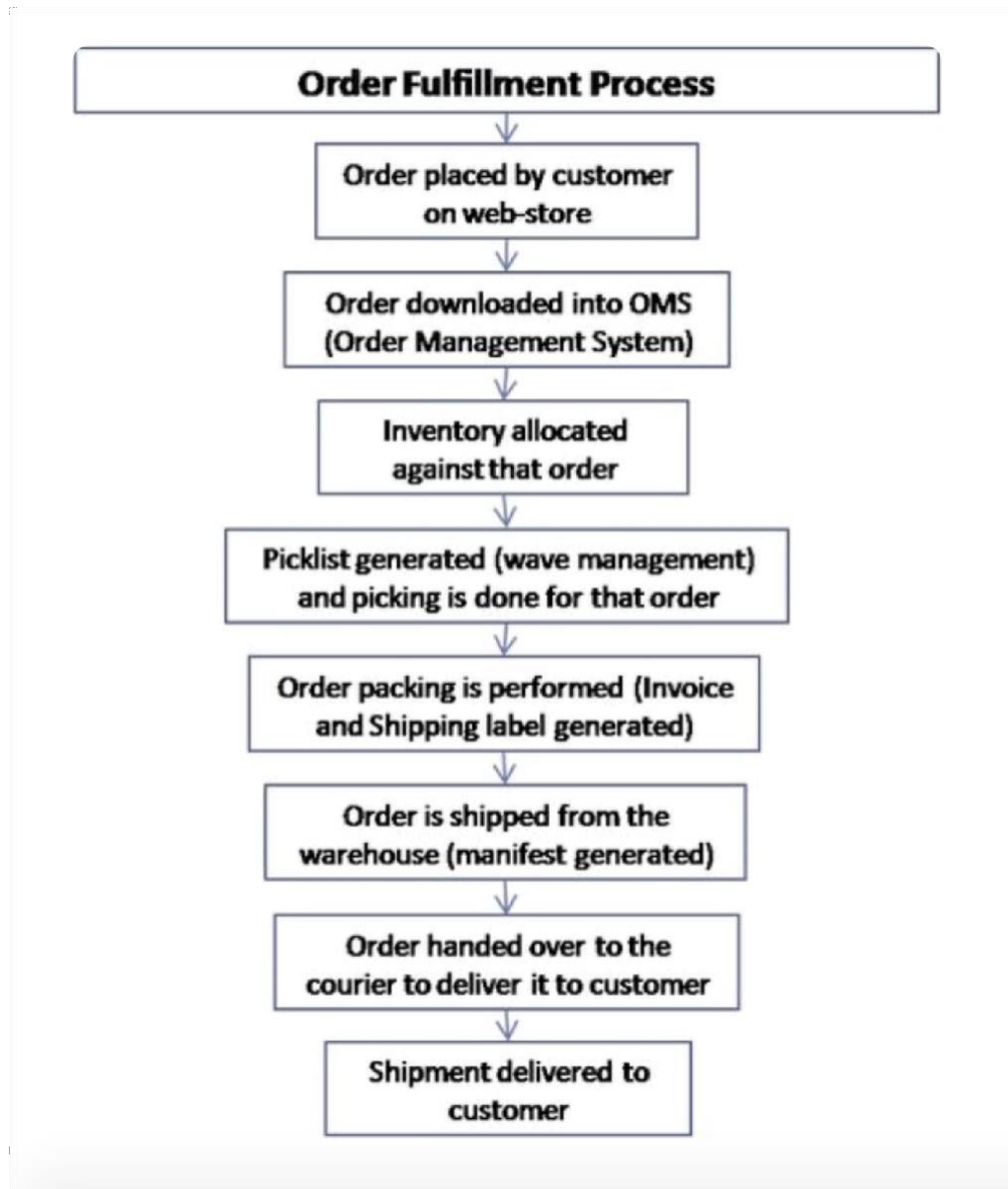


FIGURE 5: ORDER FULFILLMENT PROCESS

ORVERALL SUPPLY CHAIN VIEW AT SUDHARSHAN:

Order Receiving :

I was not able to experience the production and the initial production related order receiving I was on the distribution part of the supply chain.

Here the whole process starts after the order is received from the customer directly over the call in the warehouse or from the sales team from the HO located in Moti Nagar which is the Reginal office looking after the overall north distribution and operations.

Once the order is placed by the customer the order is recorded carefully and sent to the customer as a proof that the quantities and the product are same as desired.

After this the orders are recorded order list is made where all the order are listed in a list format.

Now here definitely every time each and every customer's demand cannot be fulfilled hence the warehouse manager goes through the list and prioritizes the day order which have to delivered. This is done keeping in mind the relationship with the other business the quantity available and other factors etc .

With inventory is available and all orders can be fulfilled on the same day it is done. After prioritization is done the list is made and this is the final list which will be dispatched within the day till any further orders.

Billing Process;

After the dispatch list is prepared the day shipments are decided the time is there to prepare the bills for these shipments. The billing helps in recording the data, knowing the inventory available record keeping and documentation.

Every procedure in SAP has a different T-code, and every process is integrated to to the overall business.

The order is put in the SAP under the T-code- VA01 and the shipping details, transporter details, freight charges etc are put along. In SAP the route is pre- decided and it is easier in calculating the freight charges. Mostly Full load containers are sent out for delivery which reduces the confusion and ease down the process.

After all these necessary details are put into the system Invoice is made.

Dispatch;

The list generated in the after the order is received goods are being made to load on board to be delivered. Mostly the transporters are arranged by Sudarshan and only in a few cases the transporter was decided and send by the customer.

Goods are made to put on board under the supervision of the supervisor who ensures goods are not damaged and the exact quantity is being transported.

The dues to the transporter if arranged by Sudarshan are being shown whilst the entry is made during the billing process which helps in clearing the overall dues later after the shipment is delivered.

Loading

The goods are put on board by the labor as mentioned earlier which is a traditional way of warehouse material handling.

Once they are on board simultaneously BOL is prepared to which is a proof of the quantity and the desired product of the shipment being sent and obtained.

Delivery

Once all this is done the shipment is out for delivery.

Now when I enquired about how the shipments are being tracked in transit especially in India, I was being told that the business works on trust and also the transporter is always responsible for the security of goods.

And also, insurance is also done keeping in mind all the adversities.

Once the delivery is being received by the customer the payment is made, Sudarshan does provide a facility of credit purchase.

Inventory Management

The inventory has to be managed in a proper way, mainly due to the fact that Sudarshan has its main production unit in Pune and hence demand has to be forecasted for the future and also the pending orders have to be kept in mind before placing an order for the new inventory. Because placing small orders for this huge distance is not practical and hence a good decision making is required.

A little additional inventory levels are also maintained in the warehouse just to overcome any foreseen fluctuation.

Unforeseen Outcomes

Many a times the business face issues like damage in transit, damaged while handling, shortage of supply, undesirable quality etc.

All these situations are kept in mind in every shipment and hence extreme supervision over every process and procedure is made.

All these unforeseen outcomes have different respective ways of dealing with them but ultimately have to be written off from the books.

Conclusion:

In the light of above-mentioned attributes of the warehouse and logistics operations of Sudarshan I can definitely say that the ground reality of doing business is far too different and difficult than the theoretical concepts.

It would also be true to say that there is no harm in operating the business with a well-integrated software and traditional practices where ever necessary if its not bringing the business a huge boom. Simple, steady, effective is the key to success in the long run.

The market share and competition also plays a huge role in the ongoing business operations, Sudarshan stands for this quality, reliability and perseverance since 1952, and thus after covering a huge market share and having the proof of authenticity in terms of time the customers are confident and collaborative approach to the business is quite evident.



Flipkart Security Bags

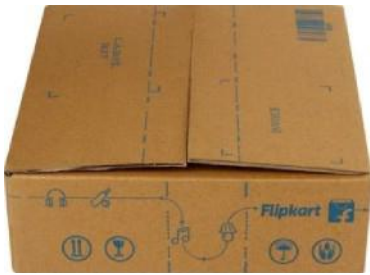
SB2.5 8.5 x 11 inch



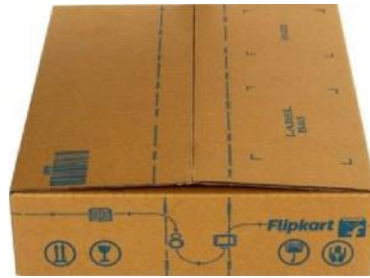
SB3 12.5 x 15 inch



B37 (10X9X3 inch)



B40(14X11X3 inch)



Flipkart Carton Boxes

B0 4.5 x 7.5 x 3.5



B24 (14X10X5.5 inch)



CONCLUSION

With the increasing threat of Amazon in the Indian market, it is pretty apparent that Flipkart has very little scope of error as far as its fulfilment process is concerned. As with supply chain in general, operations in any enterprise must build a foundation from the ground up, and in this regard Flipkart is no different.

From this internship I was able to find out some very glaring errors in their outbound processes, such as a lack of standardisation on the packaging stations, high turnover of blue collar staff and an acute lack of training given to them.

When the stakes are so high, as they are with the booming e-commerce industry in India, it leaves absolutely no room for error, there has to be a degree of obsession when it comes to implementing and enforcing processes and a level of micromanaging as well.

There also needs to be a greater involvement of the sellers in the whole process, mostly when it comes to the release of orders by Flipkart.

KAIZEN, refers to continuous improvement and it needs to be implemented, no matter how small the change is.