Contourline production confirmation system

2.1. Introduction

Previous chapter I have discussed the back ground and motivation of the project. Then I briefed about the proposed solution. This Chapter is allocated to give a detail description about Contourline and its production process. This will gives a full description about problem domain.

2.2. Contourline

Contourline located in Pallekele EPZ – Kandy. It's belongs to MAS Active Pvt Ltd. MAS Active Pvt Ltd is the Active wear manufacturing arm to the MAS Holdings, which is one of the largest apparel exporters of the country. MAS Active currently owns 7 manufacturing facilities and one centralize warehouse comprise with central cutting facility and an operation center. Figure 2.1 shows the current organizing structure of MAS Active Pvt Ltd.
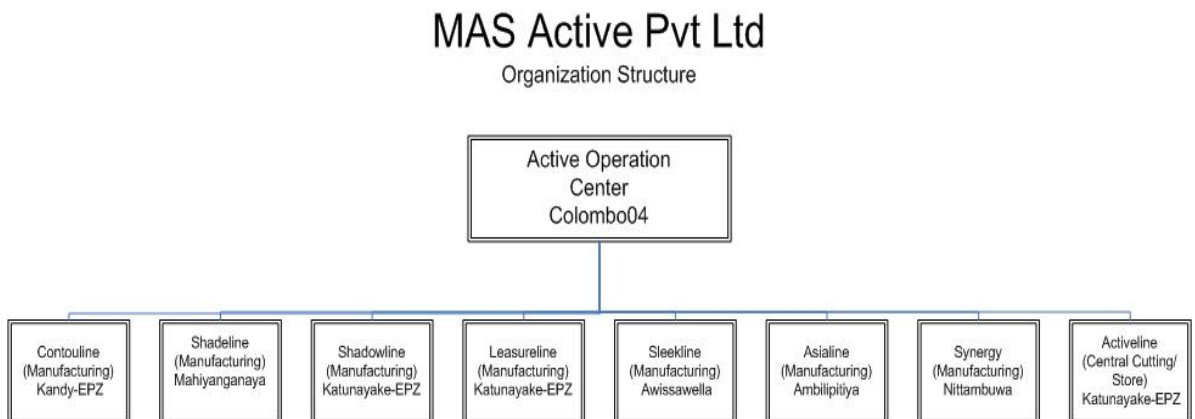

Figure 2.1 MAS Active Pvt Ltd Organization Structure.

Contourline is fully allocated to NIKE brand apparel manufacturing. It has won many certificates for NIKE brand apparel manufacturing from NIKE for quality standards in all areas in apparel manufacturing.

With the initiative of applying Lean Manufacturing Concepts to apparel manufacturing in MAS Active, Contourline is the pioneers for implement Lean Manufacturing Concepts to its apparel manufacturing process. Lean Manufacturing Concepts are renamed as MAS Operating System (MOS) in adaptation to the apparel manufacturing in MAS Active.

SAP (AFS) R/3 is implemented as the ERP in the MAS Active Pvt Ltd and it's handling the full operational cycle within the organization. Starting from the order placement, warehouse, manufacturing, billing, finance and delivering is handling from the SAP. All the manufacturing plants are also operates with the help of SAP.

2.3. Production confirmation process

Before MOS implementation in Contourline there was classical production confirmation system which is common to all the production facilities belongs to MAS Active Pvt Ltd. SAP (AFS)R/3 is the only ERP running in the organization and it enables to capture the production confirmation process into the system in all respective plants. SAP is capable to handle the day to day production, stocks, work in progress and profit and lost by each plant and as a division.

Contourline production facility comprises with mini stores, preparation area, sewing/finishing floor and finished goods store. Contourline receives cut panels from the central cutting facility belongs to MAS Active Pvt Ltd (Cut panels are also produced base on the finished good delivery requirement). Figure 2.2 shows the cut panel distribution

process in MAS Active Pvt Ltd. All the accessories are directly receives to Contourline stores before the production starts. Production requirement is channeled to plant from the central planning division base on RM availability and finished good deliver dates. Based on that, Contourline split the requirement again base on production modules and received RM/Cut Panels availability. Currently Contourline comprise with 20 production modules running 2 shifts per day. Once the bulk order requirement is divided among small orders based on production modules that requirement is created as production order in SAP.
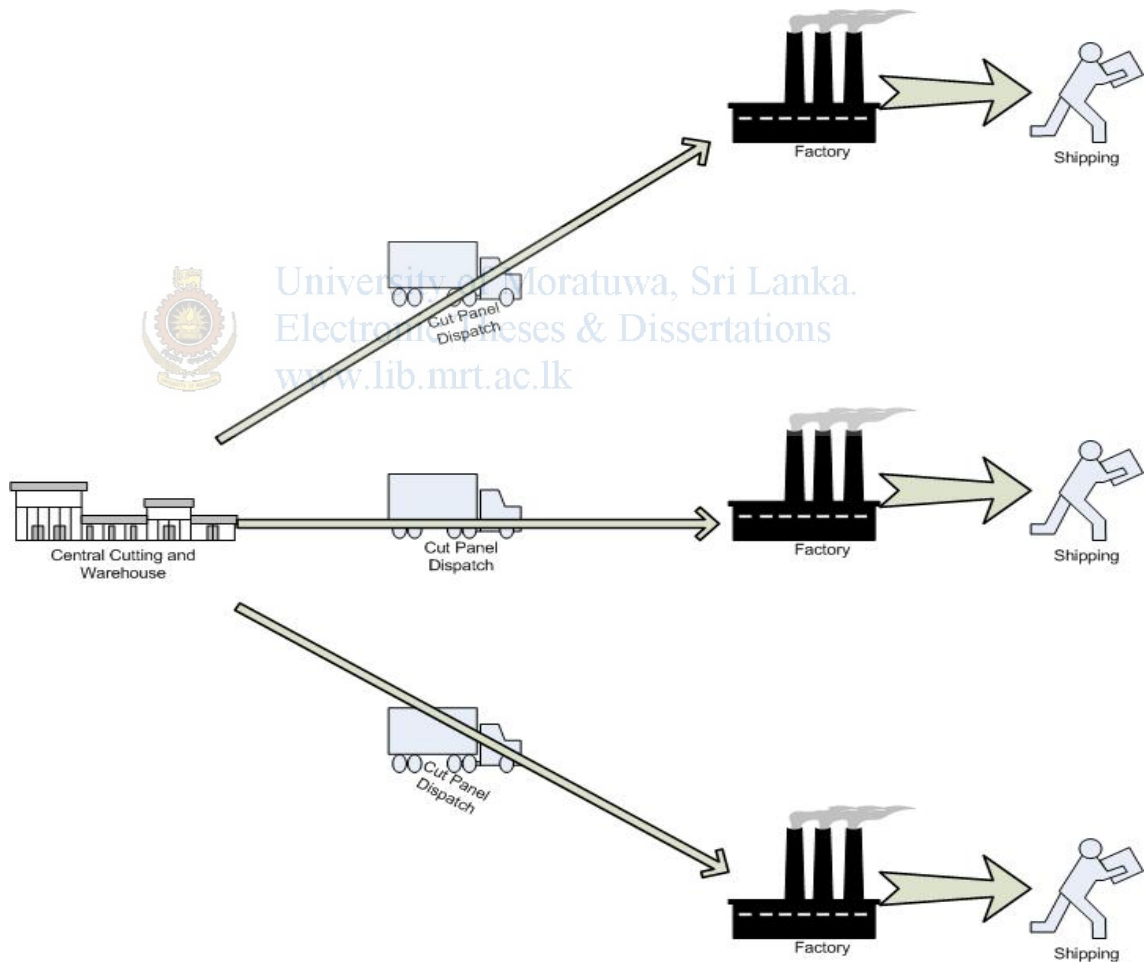

Figure 2.2 Cut panel dispatch and production process in MAS Active.

According to the colour variances and shading differences same production order is again divided in to bundles comprise with 10 to 20

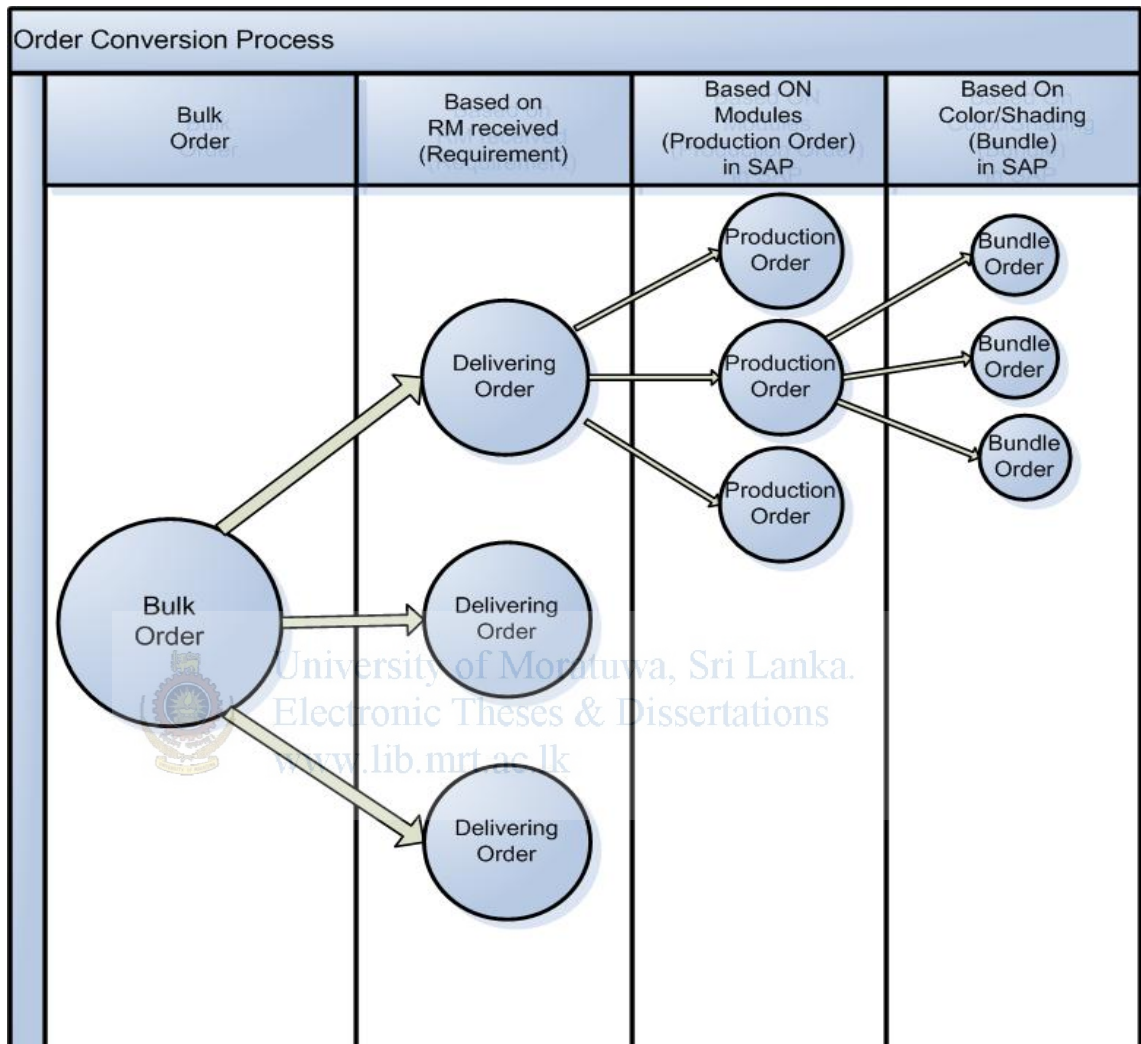pieces of garments. Figure 2.3 displays the conversion process of a order.

Figure 2.3 Order conversion process

Modules are feed with bundles sequentially. All the bundles belong to same production order are feed in to the same module. In SAP with regard to sewing operation, production order comprise with 2 operations as 10 and 20. When the line in Operation is done to a bundle, it confirms the operation 10 of respective production order with regard to bundle quantity. And in line out it confirms the operation 20 of the production order with regard to the garment

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quantity associated with the bundle. Figure 2.4 displays this confirmation process. That way in any given time SAP enables to give the no of finished garments, work in progress and to be line in/line out quantity.
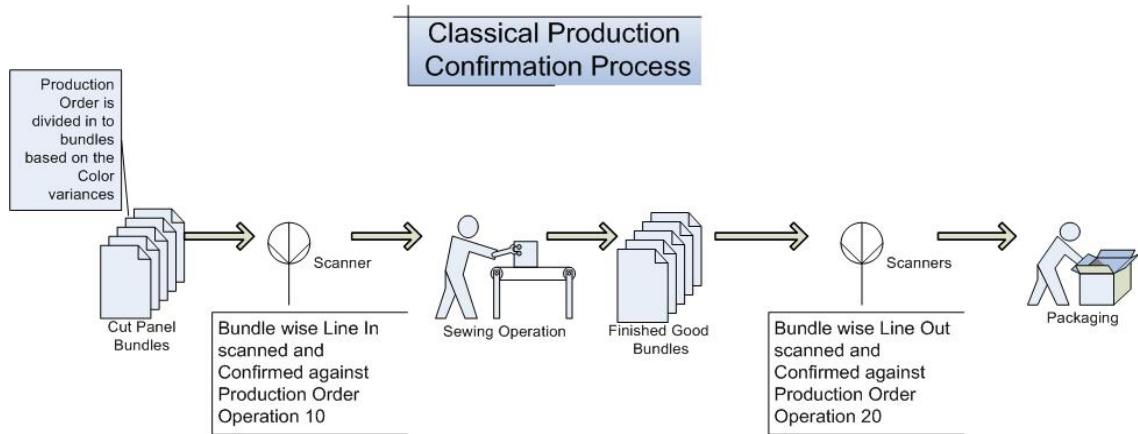

Figure 2.4 Classical production confirmation process

2.4. Issues with current system

With the MOS implementation in Contourline production confirmation system what was implemented before got obsolete. Below are some problems faced due to implement MOS in Contourline.

- Production confirmation system doesn't capable of tracking single peace flow.
- Therefore No mechanism to display the production in/out details.
- No way of issuing RM according to the production quantities.
- Unable to get the real number of production in/out in any given time.
- No error indication system.
- Need lot of resources to maintain the system to be align with the production process

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2.5. Survey of Alternate solutions.

There are no any solutions available for this kind of system. Only way is doing it manually or develop a new system that is capable to address above issues.

Activity	Classical System	Manual System	Proposed New System
Line in Confirmation	-	✓	✓
Line Out Confirmation	-	✓	✓
Issue RM aligned with Production process	-	✓	✓
Electronically display production In/Out	✓	-	✓
Indicate any errors or issues during the production process	-	-	✓

Table 2.1 Comparison of alternate processes

Base on the above diagram we can affirm the requirement of a new system. If the system update manually it will have to update all the time there is a production of finished goods. It's really time saving and unnecessary burden to the system. And if we try to plan the manual system update as a schedule activity it generate huge inventory to the system and the process.

2.6. Summary

This chapter contains the detail description about Contourline and current production process. In addition to that this chapter covers the issues with the MOS implementation in Contourline. Finally it discuss the available solutions and there potentials. Next chapter I will discuss about available technologies to solve this problem.