MAPPING AND ANALYSIS THE OPERATIONAL MANAGEMENT OF DIGITAL MULTIMEDIA PRODUCTS AT PT DIRECT VISION

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ABSTRACT

Carrying the "Astro" brand, PT Direct Vision ("PT DV") provides subscription-based television access for homes and commercial establishments. PT DV transmits up-to-the-minute information and the latest in local and international entertainment to its satellite in orbit, which returns the signal to the Southeast Asia region. The transmission can only be translated into audio video using a digital multimedia system ("DMS") made up of an outdoor mini-satellite dish, a decoder, and a smart card. DMS products are manufactured abroad and imported to be distributed to new subscribers.

The purpose of this Final Project is to evaluate the current distribution system of DMS products and suggest alternatives to promote cost efficiency in the logistical operations. Overall cost of distribution was considered relatively high and opportunities to lower cost can be attributed to better planning and key performance indicators.

The process reference model was used as an approach to evaluate the current distribution system and to present alternatives for improvement. Of the proposed alternatives, major points for improvement include utilizing regional distribution centers, appointing a third party logistics service provider, optimizing economic order quantity, and establishing key performance indicators.

***Keywords**: Information, Communication Industry, Process Reference Model, Distribution System, Key Performance Indicators, Cost Efficiency*

COMPANY PROFILE

Company History

PT Direct Vision ("PTDV") was established on 28 February 2006 as a joint venture company between Astro All Asia Networks plc and PT Broadband Multimedia.

Scope of Business

Astro is a subscription-based direct broadcast satellite (DBS) or direct-to-home satellite television and radio service in Malaysia, Brunei and Indonesia. The service is broadcast from the All Asia Broadcast Centre (ABC) located in Bukit Jalil, Kuala Lumpur, Malaysia. Astro is owned by MEASAT Broadcast Network Systems, a subsidiary of Astro All Asia Networks plc.

The service was launched in 1996 following the launch of the MEASAT-1 satellite with an initial bouquet of 22 television and 8 radio channels. Currently, the service consists

of 60 television, 17 radio, and 4 pay per view channels plus various interactive services. The television service comprises all six Malaysian terrestrial TV networks (RTM 1, RTM 2, TV3, ntv7, 8TV & TV9), a number of vernacular channels (packaged in house by ASTRO), as well as a selection of international English and Chinese language networks. Astro's own News Channel carries programming from the news channel Al Jazeera, available in dual language, Arabic and Malay, as well as the Australia Network. It also airs Astro News, a half-hour locally produced news program.

BUSINESS PROCESS

Main Business Process

The main business of PT Direct Vision is the distribution of television content to its subscribers. 24 hours per day, television content is distributed from its main control center sent to its MEASAT-2 (Malaysia East Asia Satellite). Television content is currently sent to the Satellite via four transponders, each with a capacity of 12 channels which totals to Astro's current 48-channel line-up. The signal is then reflected back and captured by the individual outdoor units facing east towards the satellite.

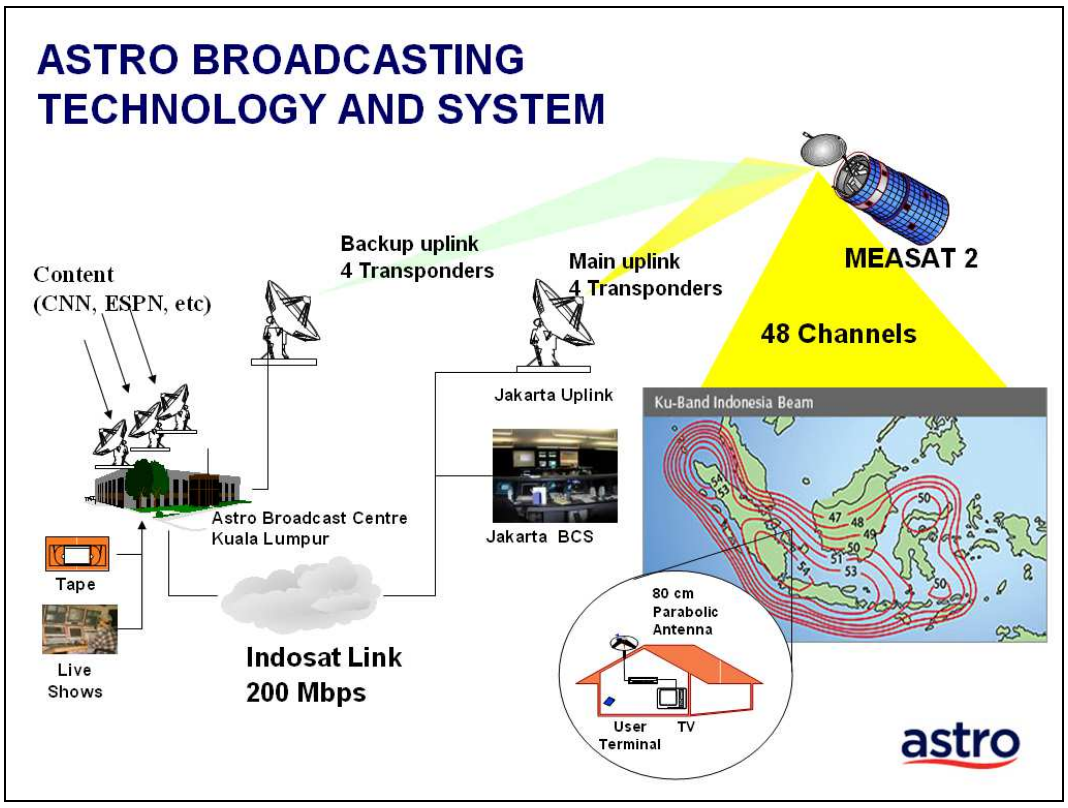

Figure 1 ASTRO Broadcasting Technology and System

This however will not be possible without the successful distribution of necessary equipment of to facilitate the broadcast of television content from the satellite to its subscribers. These equipments are made of two main products which are the Outdoor Unit (ODU), which receives the television signal transmitted via satellite, and the decoder, which picks-up the radio-frequency signal and translates digital information into television channels.

Marketing team creates attractive packages of channel line-ups and promotions through pricing and hosting promotional events, such as Astro Fest 2007 held on the last weekend of April 2007 at the Paris Van Java shopping complex in Bandung.

The Sales & Distribution department provides expertise in selling and creating distribution channels. This department includes the sales team as well as the logistics team. Sales is divided into several categories, namely corporate (banks, companies, etc), commercial (apartments, hotels, hospitals, residential complex, etc), and modern market (Hypermart, Electronic City, etc).

Finance & Accounting supports the operations through managing procurement and revenue transactions. The team also helps in evaluating business prospects as well as engaging in partnerships from the financial perspective.

Supporting Business Process-Logistics

Both products, the Outdoor Unit (ODU 80i) and the Integrated Receiver Decoder (IRD) are currently being imported from Malaysia. Both the ODU and the IRD are produced specifically for Astro. The products are delivered FOB shipping point in Kuala Lumpur then shipped to Jakarta. Currently, the responsibilities of the PTDV logistics team begins with receiving the shipment at the port all the way thru distribution to the main dealers, stockists, or modern markets (Hypermart, Electronic City, etc.). The actual processing of customs, warehousing, and delivery however are not performed by the logistics team as these tasks are outsourced to third parties. The responsibilities of the team are to oversee the operations as well as perform administrative duties.

The following slide portrays the current flow of these two products from supplier to end customers.

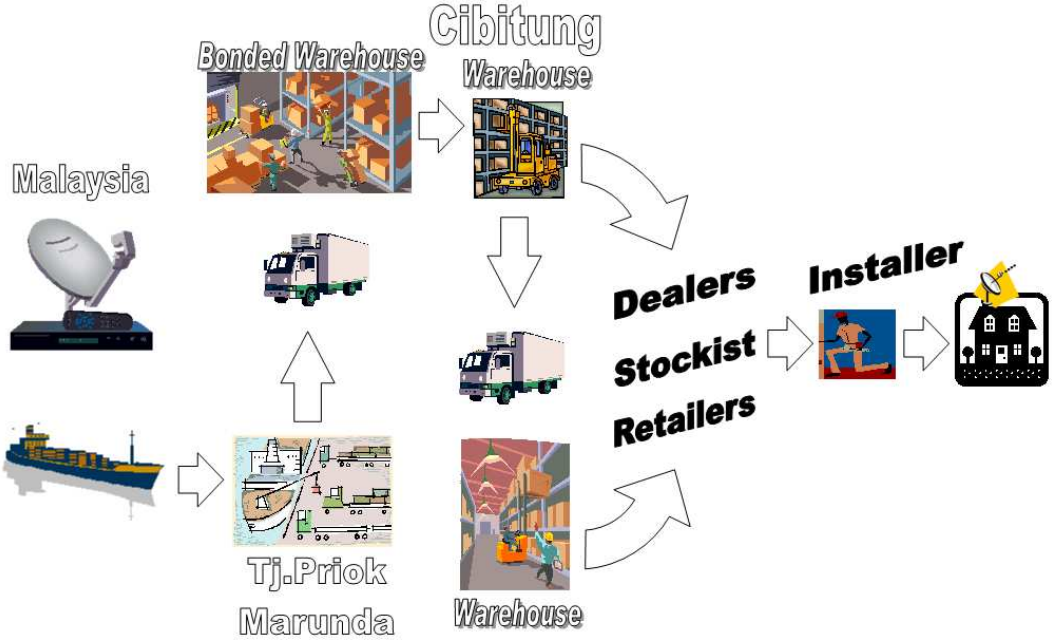

Figure 2 Diagram Flow Of Products From Factory To End Customer

PTDV currently engages two Logistics Service Providers (LSP's) however only one is tasked with customs clearance through its bonded warehouse. Once the products are cleared through customs, the pallets are delivered and stored at either the Cibitung warehouse or Marunda warehouse. Upon request from Astro, the LSP's will deliver the products via air, sea, or land to specified locations across the country, whether it is a main dealer, a stockist, or a modern market. These distribution channels will then conduct sales and delivery to end customers.

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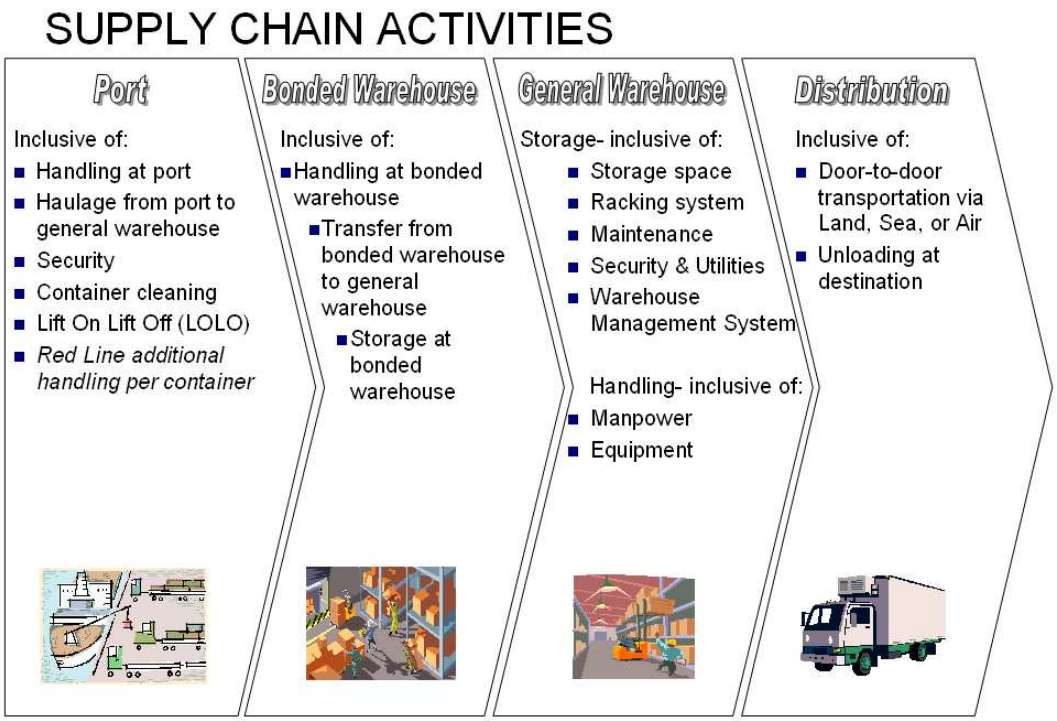


Figure 3 Diagram Flow Of Products Monitored By Logistics Division

The main dealer (MD) is tasked with conducting sales in the area of operation through its network of local dealers. MD's stock equipment and distribute to its dealers. When stock is low, they will contact the Sub-Office, Area Office, or Regional Office (whichever they are assigned to) and orders equipment to be shipped to their site. All requests are pooled at the respective Regional Office (RO) who will compile and forward requests to the head office (HO). Following approval from top management of Sales & Distribution dept (S&D), the warehouse team will then send request to the LSP to send equipment to the MD's. In return for their services, the MD's are awarded a fixed commission per activation of equipment.

The same process applies to the stockist. A stockist by definition is a retailer that stocks goods. Differences between the two channels include the fixed commission amount per subscription activation and the way the equipment reaches end customers. When a new subscription request is granted, HO will call a third-party installer to pick up the equipment at a stockist and install at the new customer's premises.

External communications structure
PTDV has a structure of representative offices across the country to connect with their distribution channels. The Indonesian market is currently divided into 5 regions represented by regional offices (RO) in Jakarta, Bandung, Medan, Semarang, and Surabaya. In addition, three area offices (AO) currently support the regional offices for areas surrounding Denpasar, Palembang, and Pekanbaru.

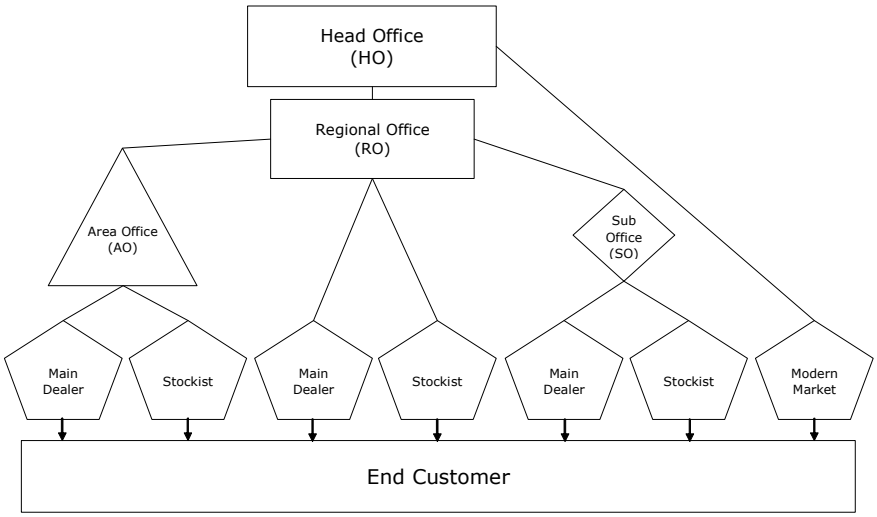


Figure 4 Regional Communications Network

Business Strategy
Business strategy of PT Direct Vision can be portayed with analyses of internal and external factors through SWOT *(Strength, Weaknesses, Opportunities and Threat)* analysis. This has been done by PT Direct Vision to formulate a company business strategy, as well as measure its competitive position towards the business environment in the pay television industry in Indonesia.

TOPIC IDENTIFICATION

Topic Background
PT Direct Vision's entrance into the Indonesian market is not one that is welcomed with open arms by PT Indovision. The company faces a challenge to gain and increase market size and market share by providing quality broadcasting cheaply and effectively.

During its first year of operations, PTDV entered the market with huge financial support from its parent companies. Now into its second year, management is tasked with finding ways to decrease its annual budget. Most of the budget reduction is targeted towards the Sales & Distribution department, especially in Distribution. Consequently, the company opened a tender to appoint new LSP to lower prices.

Selection of Topic
This topic was chosen because the logistics division is new in this company. During its first year going commercial, the company focused on marketing and sales, building awareness and comany infrastructure for

operations. As the company is moving well into its second year and are exploring ways to operate more effectively and efficiently, this final project aims to identify potential improvements in the warehousing and distribution processes of the company.

Purpose of Study

The purpose of this study is to learn and understand the importance of supply chain management at PTDV. More specifically this study will identify aspects of the demand and supply planning of products for improvement, applying up to date theories in supply chain management. It is also the intention to present an alternative solution to effective and efficient supply and distribution of products.

Limitations in Scope of Study

Due to time, confidentiality, and scope of responsibility, the following limitations are applicable:

1. This study is focused on the logistics division, which is under the Sales & Distribution department of PT Direct Vision.
2. Focus of study is only on the distribution of DMS products between the main distribution center (warehouse) and sub distribution centers (dealers, stockists, or retailers).
3. Quantitative and qualitative analyses performed are only focused on the supply and distribution of mini-satellite and decoder products at the main distribution center level.
4. Sales demand is aggregate.
5. Information provided may not be as detailed.

DISCUSSION & ANALYSIS

1. Methodology

The methodology used for this final project is the Process Reference Model. This model integrates the well-known concepts of business process reengineering, benchmarking, and best practice analyses into a cross-functional framework.

In the Business Process Reengineering concept, the “as is” state of a process is captured and the “to be” desired future state of the process is derived. In Benchmarking, operational performance is quantified and internal targets are established based on best in industry standards. Finally in the Best Practice Analysis concept, management practices and software solutions that will result to best in industry performance is characterized.

These concepts and processes interact in the Process Reference Model as seen in Figure 4.1 below.

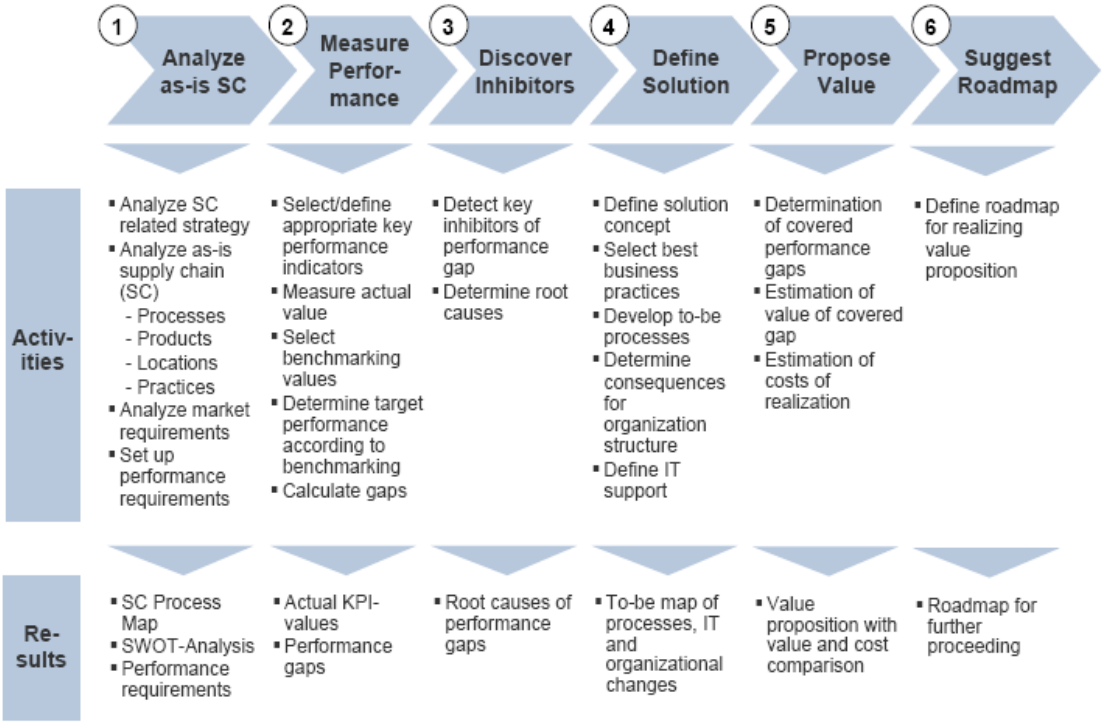


Figure 5 Process Reference Model

Analysis of "as-is" Supply Chain

In this first portion of the model, the supply chain process currently in operations at the company is mapped and performance requirements are identified. Analysis is performed on the processes, products, locations, practices, as well as market requirements. Appropriate performance measurements are then set up tailored to market requirements.

Performance Measurement

Following analyses of existing supply chain, key performance indicators are identified and calculated. Raw data will be obtained from the company and processed to determine current company performance.

Discovery of Inhibitors

Once Key Performance Indicators have been identified, inhibitors of performance will then be identified through observation and discussion with appropriate personnel. Root causes of performance gaps will be determined and analyzed.

Solutions Defined

Detection of root causes will facilitate identification possible solutions to satisfy performance requirements identified in the first part of the model. "To be" processes will be mapped along with possible IT and organizational changes.

Value Proposal

Costs of realization as well as value of covered gaps will be estimated in this stage of the model. Estimated cost comparisons between quantitative portions of "as is" and "to be" will be performed.

Roadmap

Finally, in order to realize the value proposed in the previous section, a roadmap will be defined for further proceeding. This will include steps to be taken to arrive at solutions defined earlier in the model.

2. "As is" Supply Chain Analyses

In the first part of the model, the current supply chain in operations at the company is identified, observed, and analyzed. A general, overall process have been discussed in chapter 2 of this paper. This portion will attempt to discuss relevant processes in more detail.

The company is in the business of distributing television content for knowledge and entertainment purposes and are currently regulated under the Ministry of Information and Communications as well as the Ministry of Trade. These two governmental bodies regulate different portions of the business.

IMPLEMENTATION PLAN

Suggest Road Map

Most of the solutions proposed in the previous chapter can be realised within a relatively short period of time. A few however may take up a longer period of time.

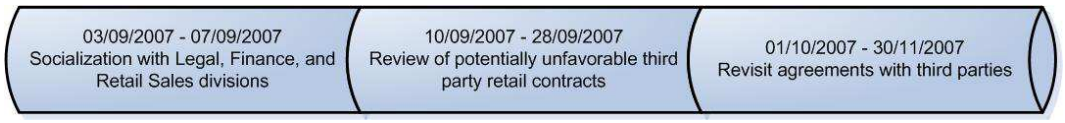
In the immediate short term, PTDV must concentrate all efforts into finding new third party LSPs for its port clearance, warehousing, and outbound distribution to its sub-distribution networks. In addition, they can also take care of the minor proposals such as establishing key performance indicators, responsibilities, and standard procedures. The proposed timeline for each activity are as follows:

A. <u>Sort out third party contracts</u>

Phase I : Socialization with Legal, Finance, and Retail Sales divisions

Phase II : Review of potentially unfavorable third party retail contracts

Phase III : Revisit agreements with third parties

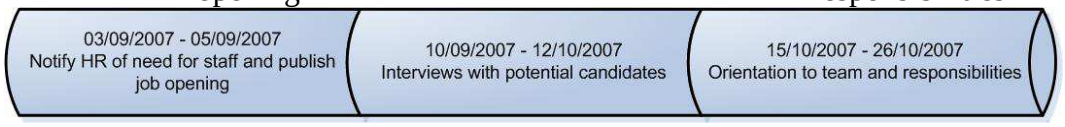


B. <u>Hire inventory specialist</u>

Phase I : Notify HR of need for staff and publish job opening

Phase II : Interviews with potential candidates

Phase III : Orientation to team and responsibilities

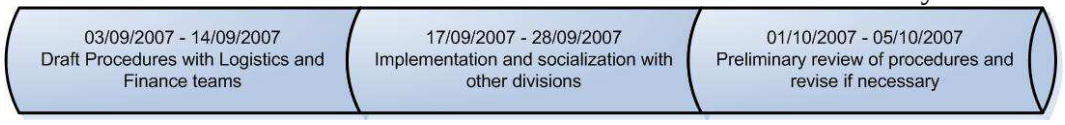


C. <u>Create procedures and responsibilites to monitor inventory</u>

Phase I : Draft Procedures with Logistics and Finance teams

Phase II : Implementation and socialization with other divisions

Phase III : Preliminary review of procedures and revise if necessary



D. Establish reporting system from Sub DC to Head Office

Phase I : Socialization with Regional Office, Finance, IT and Logistics

Phase II : Draft Procedures with Regional Office who will be in charge of gathering data in their respective jurisdiction and Finance

Phase III : Socialization to Third Party retailers

Phase IV : Implementation

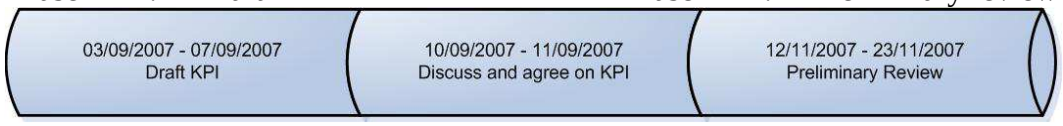
Phase V : Preliminary review

E. Establish KPI for supply chain/distribution department

Phase I : Draft KPI

Phase II : Discuss and agree on KPI

Phase III : Preliminary review

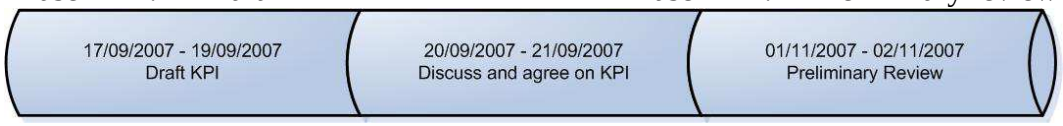


F. Establish KPI to monitor inventory levels at Sub DC

Phase I : Draft KPI

Phase II : Discuss and agree on KPI

Phase III : Preliminary review

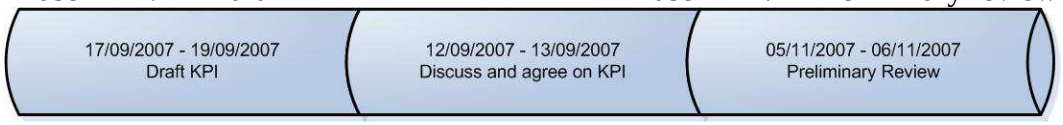


G. Establish KPI to monitor inventory levels at Main DC

Phase I : Draft KPI

Phase II : Discuss and agree on KPI

Phase III : Preliminary review



H. Replacement of refurbished goods

Phase I : Sell remaining refurbished boxes

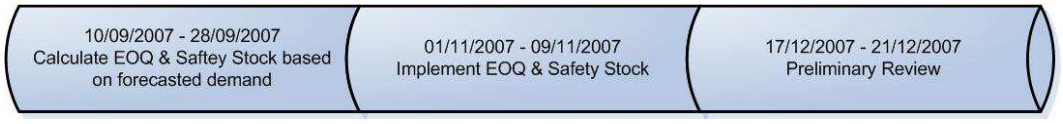
Phase II : Order replacement boxes

I. Establish economic order quantity

Phase I : Calculate EOQ & Saftey Stock based on forecasted demand

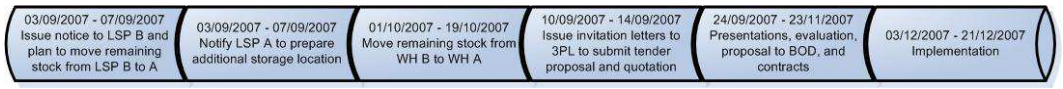
Phase II : Implement EOQ & Safety Stock

Phase III : Preliminary Review

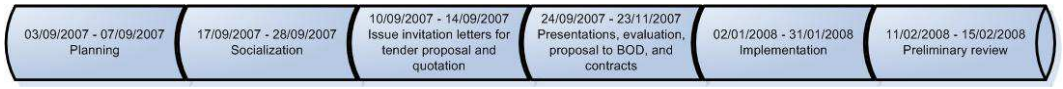


J. Switch logistics service provider

Phase I : Issue notice to LSP B and plan to move remaining stock from WH B to WH A
Phase II : Notify LSP A to prepare additional storage location
Phase III : Move remaining stock from WH B to WH A
Phase IV : Issue invitation letters to 3PL to submit tender proposal and quotation
Phase V : Presentations, negotiations, evaluation, proposal to BOD, and contracts
Phase VI : Implementation



K. <u>Establish decentralized distribution system</u>
Phase I : Planning
Phase II : Internal socialization
Phase III : Issue invitation letters to 3PL to submit tender proposal and quotation
Phase IV : Presentations, negotiations, evaluation, proposal to BOD, and contracts
Phase V : Implementation
Phase VI : Preliminary review



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