

INVENTORY OPTIMIZATION AT APOLLO DIAGNOSTICS

By

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ABOUT APOLLO HEALTH AND LIFESTYLE LIMITED (AHLL)

At Apollo Health & Lifestyle Limited, (AHLL) India's first name in corporate healthcare, 'good health for all' is the abiding focus.

It is counted among Asia's leading healthcare providers today

VISION:

For the next phase of development is to 'Touch a Billion Lives.'

MISSION:

To bring healthcare of International standards within the reach of every individual.

Its proven clinical excellence has earned 8 JCI accredited hospitals and 2 Harvard Business School case studies for Apollo Hospitals Group.

PARTNERING WITH EXCELLENCE:

The Apollo Group has made quality, affordable healthcare accessible to all.

Currently, the Group caters to 10,000 beds across 61 hospitals in India, rest of Asia and Africa.

With 80+ clinics, 1,600 pharmacies, 115 telemedicine units across 9 countries, health insurance services, global projects consultancy, 15 academic institutions and a Research Foundation, the Apollo Group is indeed a prolific chapter adder in the history of Indian healthcare.

The Group attracts more than 100,000 footfalls a day and cumulatively, has served more than 37 million people hailing from about 125 countries till date.

To expand the offering and increase its accessibility to a wider network of patients and doctors, Apollo Hospitals had launched... 'Apollo Diagnostics', a service fully dedicated to providing diagnostics for all age groups.

A team of expert pathology technologist and state-of-the-art diagnostic equipment, guided by Apollo's 30-year legacy of excellence, ensure the quality and accuracy of test results.

In AHLL, 3.5 million diagnostic tests are delivered every year and 95% of patients have rated AHLL excellent in diagnostic and patient service.

Apollo Diagnostics consists of Satellite Labs, Regional Reference Labs, Reference Labs, Hospital Labs, Patient Care Centers and it also provides Home Sample Collection service.

The services provided by Apollo Diagnostics are:

Biochemistry, Hematology, Clinical Pathology, Cytology, Histopathology, Immunology, Microbiology, Molecular Genetics, Molecular Diagnostics, Serology

INTRODUCTION:

Inventory or **stock** refers to the goods and materials that a business holds for the ultimate purpose of resale (or repair).

Inventory management means properly maintaining of adequate stocks to ensure uninterrupted services. Control Inventory method helps to Organize and manage usage, purchases and budget and promotes good understanding and the capacity to control financial costs.

Laboratory Inventory includes the supplies and materials need for all laboratory performance. Laboratory inventory management ensures availability of materials and kits when needed, avoids the use of expired kits and minimizes wasting components

The key components required for Successful purchasing and inventory management are:

- Selecting vendors and understanding the considerations
- Purchase agreements consideration
- Implementing an Inventory Management Program by establishing Implementation steps
- Receiving, inspecting, testing, storing, and handling of materials
- Tracking materials to individual patients ; that is, the laboratory should be able to identify specific test materials used for performing tests on any given day, so that if there is a problem with a patient result, the laboratory will know what reagents were used.
- Analyzing the needs for materials
- Consumption-based and morbidity based quantification
- Assessing and maintaining inventory
- Developing forms, logs and logbook
- Receipt and Storage of Supplies
- Organization of shelves
- Labelling reagents
- Controlling expiration periods
- Dispatching supplies to satellite laboratories

RATIONALE:

Laboratory inventory management is a critical component of the quality management system. Efficient and cost-effective laboratory operations need the uninterrupted availability of reagents, supplies, and services. Inability to test, even for a short time, is very disruptive to clinical care, prevention activities, and public health programs.

Careful management of inventory helps to prevent waste, which can occur if reagents and supplies are stored improperly, or if reagents become out-dated before they can be used. Establishing a purchasing and inventory management program will ensure that:

- Supplies and reagents are always available when needed;
- High quality reagents are obtained at an appropriate cost;
- Reagents and supplies are not lost to improper storage or kept and used beyond expiration.

RESEARCH TOPIC:

Inventory Optimization at Apollo Diagnostics

RESEARCH QUESTIONS:

1. What is the current Approval turn around time, Purchase order raised turn around time and Delivery turn around time of items used in routine laboratory tests at Apollo Diagnostics? If any delay, then mention reasons.
2. What are the different methods for optimizing the Start up laboratory budget?
3. What are the fast moving as well as maximum budget consuming items at Apollo Diagnostics?

AIM OF THE STUDY:

To increase efficiency of Inventory Management process at Apollo Diagnostics

OBJECTIVES:

1. To study the Approval Turn Around Time, Purchase order raised Turn Around Time and Delivery Turn Around Time of items used in routine laboratory test and its gaps.
2. To optimize the Start up laboratory budget
3. To analyze stock movements in the store and to classify the items on the basis of their consumption value and movement

RESEARCH METHODOLOGY:

The study was conducted during the period of 3 months; February 2016 to April 2016 from The Apollo Diagnostics, Hyderabad.

The Study Area is Satellite Lab store (SL), Regional Reference Lab store (RRL), Regional Lab store (RL), Hospital Lab store, Patient Care Centre Store (PCC), warehouse.

This is descriptive analytical study which included analysis of all items (965 items) which were used to perform Routine tests in laboratories such as Biochemistry, Hematology, Clinical Pathology, Cytology, Histopathology, Immunology, Microbiology, Molecular Genetics, Molecular Diagnostics, Serology as these routine tests contribute nearly seventy five percent of business of Apollo Diagnostics as per HMIS data.

DATA COLLECTION TECHNIQUES:

PRIMARY DATA:

- Observation
- In depth Interview of staff (1 Head of Diagnostics, 1 Assistant manager of Laboratory and warehouse, 2 Procurement Executive, 14 Pathologist, 1 Quality head, 23 Store Incharge, 12 Patient Care Centre Incharge and other staff)

SECONDARY DATA:

- Record Review of data sheet from Hospital Management Information System (INSTA software) and laboratory instrument
- Email Communication

DATA COLLECTION TOOLS:

- Data sheet from INSTA software and laboratory instrument
- Observation Checklist
- In depth interview guide and Standard Operative Procedures (SOPs) and guidelines

OBSERVATIONS AND FINDINGS

Objective 1: To study the Approval Turn Around Time, Purchase order raised Turn Around Time and Delivery Turn Around Time of items used in routine laboratory test and its gaps.

Methodology:

We had find out the following Turn Around Time (TAT) of items used in routine laboratory test both Location and Item wise, to find out exact reasons for the delay.

- A. Approval TAT(In days) = Approved date – Indent Date
- B. Purchase Order Raised TAT(In days)
= Purchase Order Raised date – Approved date
- C. Delivery TAT (In days)
= Goods Received Note date – Purchase Order Raised date

Location wise TAT:

We had taken data for last 3 months (January, February and March) which included, Item name, Location name, Vendor name , Indent date, Approved date, Purchase order (PO) raised date, Goods received note date

and By the above formula, we had calculated Approval TAT, PO Raised TAT and Delivery TAT of items and we had considered only those locations which are having higher TAT than standard time.

Item wise TAT:

We had taken data for last 3 months (January, February and March) which includes, Item name, Location name, Vendor name , Indent date, Approved date, Purchase order (PO) raised date, Goods received note date and By the above formula, we had calculated Approval TAT, PO Raised TAT and Delivery TAT of items .

As, One item will be supplied in different locations, So to calculate item wise TAT, We had taken average of Approval TAT, PO raised TAT and Delivery TAT for each item and at last we got total 345 items TAT list . Out of those, we had considered only those items which are having higher TAT than standard time.

A) DELAY IN APPROVAL TURN AROUND TIME (In days)

Methodology:

As per Standard Operative Procedures and guidelines of Apollo Diagnostics, The Standard Approval TAT was 3 days.

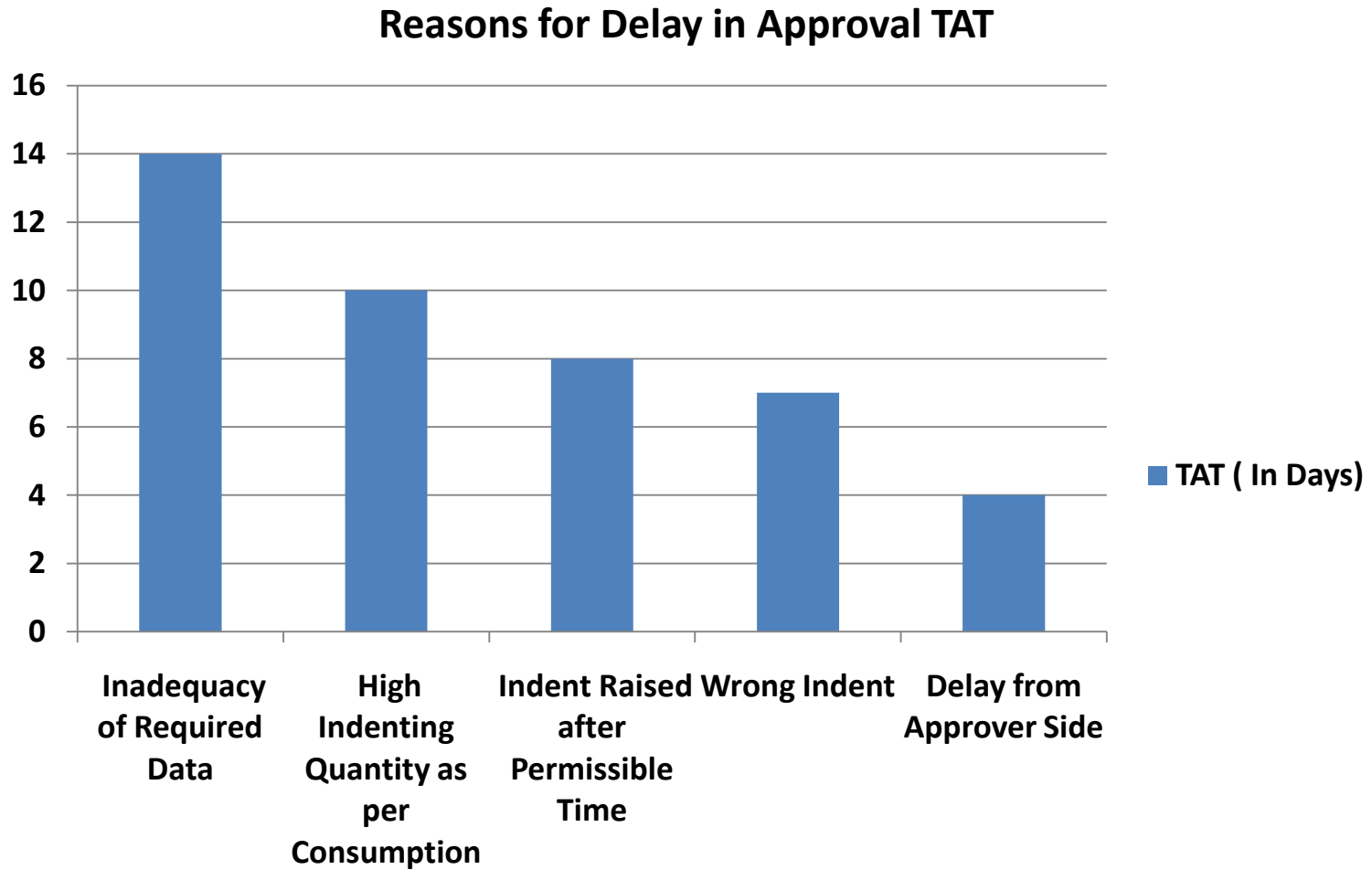
So to find out the Delay in Approval TAT, We had taken data of all 345 items from item wise TAT list and out of those, we have selected those items, which are having Approval TAT more than 3 days

(Source- SOPs of Lab store Department and Data from Insta Software)

So We observed that,

Out of 345 Items, 57 Items (16%) had Approval TAT more than 3 days

The Reasons for Delay in Approval TAT are as follows



(Source- Data from Email communication)

Reasons for Delay in Approval TAT	Inadequacy of Required Data(Closing Stock and Inventory Planning sheet)	High Indenting Quantity as per Monthly Average Consumption	Indent Raised after Permissible Time	Wrong Indent	Delay from Approver Side
TAT (In Days)	14	10	8	7	4
Item Count	12 Items	2 Items	1 Item	16 Items	26 Items

The respective items which were having Approval TAT more than 3 days are as follows:

5 Drug Pannel KIT[Amphetamine+Cocaine+Morphine+Phencyclidine+TetrahydroCannabinol]
6 Drug Pannel KIT[Amphetamine+Barbiturates+Benzodiazapines+Ma rijuana+cocaine+Methadone]
ADVIA CENTAUR VIT.B12 DTT/REL AGENT (1X2X1) (121093)
REAGENT PROBE SIEMENS 10455793
UCFP-URINE/CEREBROSPINAL FLUID PROTEIN 80T (SIEMENS) DF26
ANTI HCV CALIBRATOR CODE:1940667
ANTI HIV CALIBRATOR CODE: 1700863
HBSAG ES CALIBRATOR CODE: 6802132
ANTI HCV CONTROL Code: 6800731
MAINTENANCE PACK CODE:1831312
FOUCHETS REAGENT 125 ML
THERMAL PRINTER PAPER FOR XPAND/ARX/XL/RXL/MAX (4 ROLLS 97MTR EACH) (SIEMENS) D829



**Inadequacy of Required
Data(Closing Stock and
Inventory Planning
sheet)**

GLASS TEST TUBES (ASTRA SCIENTIFIC)
12X75 100'SPACK

TEST TUBE RACK 12X75



**High Indenting
Quantity as per
Monthly
Average
Consumption**

RHELAX CRP 100T (TULIP)



**Indent Raised
after Permissible
Time**

ANTI HCV 100'S PACK CODE: 1318450
HBSAG CONTROL CODE:6800598
SIGNAL REAGENT CODE:1072693
ADVI CENTAUR FT4 250T- Code : 10282219
ANTI-HIV 1/2 CONTROL CODE: 6800586
Double Distilled Water 5ltr
UNIVERSAL WASH RGT CODE: 8389793
WIDAL (TULIP) 4X5ML
ESTRADIOL REAGENT PACK (CAT NO:110784), 1X 100T-SIEMENS
Combur 10M test 100Strips Make:ROCHE
ADVIA CENTAUR FERRITIN Code:110745 Siemens 50's Pack
ADVIA CENTAUR FT3 Code:119780 Siemens 50's Pack
ANCILLARY PROBE WASH Code:02416113 Siemens 2x25 mL's Pack
PROGESTERONE (CAT NO:118530), 1X50 T-SIEMENS
Snap Pack 03112349. Make : Roche
HBsAg (SD)30T



Wrong Indent

ADVIA CEN T3/T4/VB12 ANC RGT Code:110329 Siemens 6x25 mL's Pack
ANTI HIV 1+2 REAGENT 100'S PACK CODE:1241850
ALB-ALBUMIN 480T (SIEMENS) DF13
AP PREGNACY TEST CARD
BARCODE LABEL STICKERS (2 "x 1") - 2000 Per Roll
BLOOD GROUPING KIT (ERYSCREEN). 3X12ML
CA-CALCIUM 480T (SIEMENS) DF23A
FACE MASK
Long Register 300Pgs Ruled
SAMPLE CUPS WITH LIDS 1.5ML (SIEMENS) DSC4 1000'SPACK.
SODIUM CHLORIDE 500GM
Stapler Pin No.10 Kangaroo
ALP-ALKALINE PHOSPHATE 360T (SIEMENS) DF15A
TP- TOTAL PROTEIN 480T (SIEMENS) DF73
TBI- TOTAL BILIRUBIN 480T (SIEMENS) DF167
MALB CALIBRATOR 6X2.0ML (SIEMENS) DC114
ABX EOSINOFIX (1 LTR)
BLOOD UREA NITROGEN (BUN) - 5*60T- 8102204
CHOL-CHOLESTEROL 480T (SIEMENS) DF27
CREA-CREATININE 480T (SIEMENS) DF33A
GGT-GAMMA GLUTAMYL TRANSFERASE 288T (SIEMENS) DF45A
GLU-GLUCOSE 1440T (SIEMENS) DF40
HIV (TRIDOT) J.MITHRA 100'spack.
PHOSPHOROUS (PHOS) - 5*60T- 1513209
TBI/DBI CALIBRATOR 6X1.0ML (SIEMENS) DC167
TOTAL PROTEIN (TP) - 5*50T- 8392292



**Delay from
Approver Side**

We had taken those Locations which were having Approval TAT more than 3 days both Location wise and Item wise.

Locations with Item Wise High Approval TAT	
Out of 57 Items which had delay in Approval TAT	Location name
14 items	Bowenpally Regional Lab
9 items	Coimbatore Satellite Lab
24 items	Indrapuram
6 items	Kondapur Regional Lab
1 item	Vizag Satellite Lab
2 items	Viman Nagar Regional Lab
1 item	Koramangala Regional Lab

(Source- Data from Item wise TAT list)

Locations with location Wise High Approval TAT
Bowenpally Regional Lab
Coimbatore Satellite Lab
HLM Deepam
Indrapuram
Kondapur Regional Lab
Koramangala Regional Lab
Mysore Regional Lab
Vizag Satellite Lab

(Source- Data from Location wise TAT list)

Out of these locations, We had taken only those common locations which were having Approval TAT more than 3 days both Location wise as well as Item wise to focus on exact locations to reduce the delay in Approval TAT.

Those common locations are as follows:

Bowenpally Regional Lab
Coimbatore Satellite Lab
Indrapuram
Kondapur Regional Lab
Vizag Satellite Lab
Koramangala Regional Lab



**Focus on these Locations
only as They have High
Location wise Approval TAT
and High Item wise Approval
TAT**

B) DELAY IN PURCHASE ORDER (PO) RAISED TAT (In days)

Methodology:

As per Standard Operative Procedures and guidelines of Apollo Diagnostics, The Standard PO Raised TAT was 3 days.

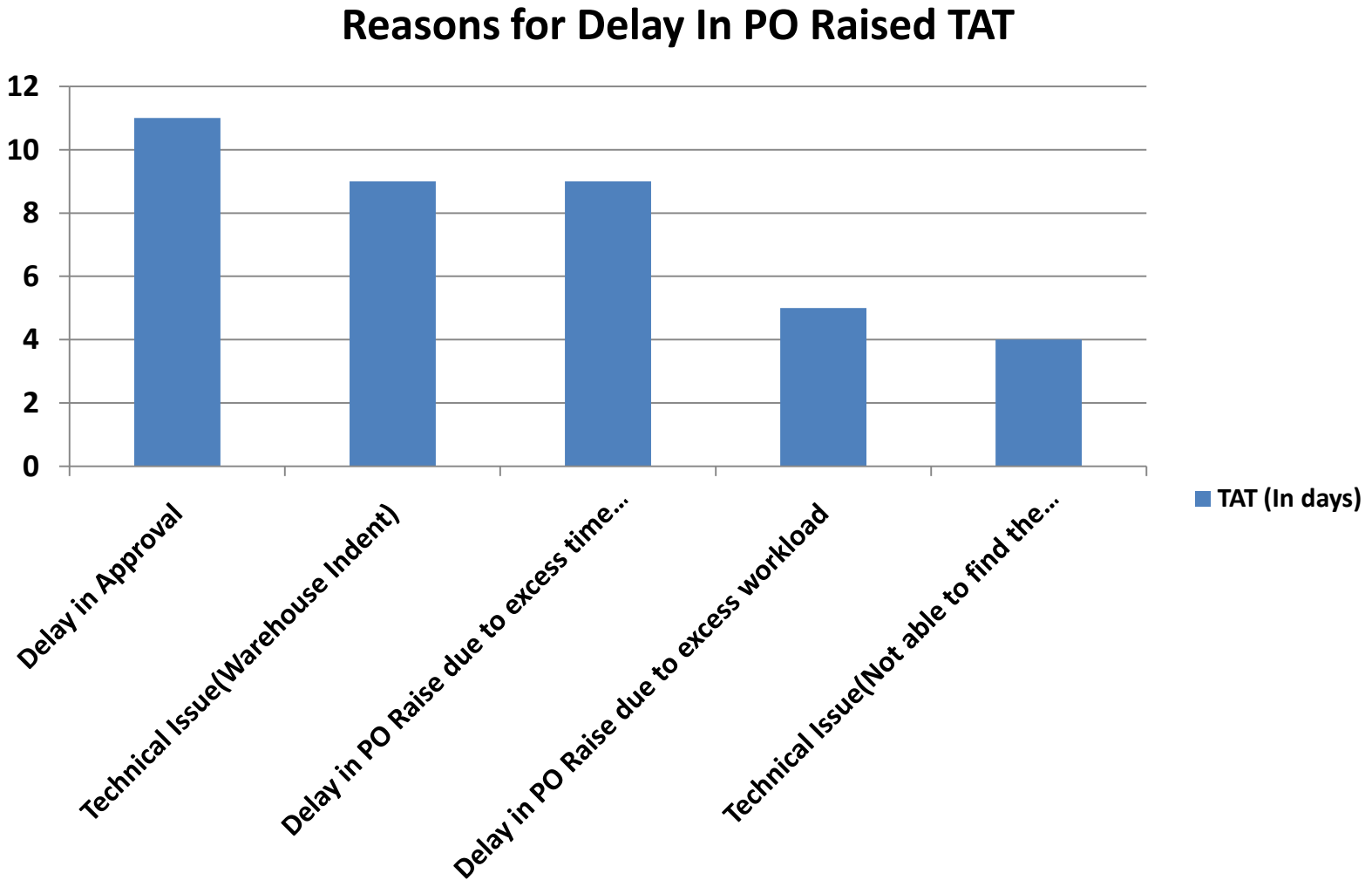
So to find out the Delay in PO Raised TAT, We had taken data of all 345 items from item wise TAT list and out of those, we have selected those items, which are having PO Raised TAT more than 3 days

(Source- SOPs of Lab store Department and Data from Insta Software)

So We observed that,

Out of 345 Items, 24 Items (7%) had PO raised TAT more than 3 days

The Reasons for Delay in PO Raised TAT are as follows

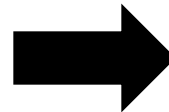


(Source- Data from Email communication)

Reasons for Delay in PO Raised TAT	Delay in Approval	Technical Issue(Warehouse Indent)	Delay in PO Raise due to excess time taken for Finalizing Item with Vendor	Delay in PO Raise due to excess workload	Technical Issue(Not able to find the Indent Store)
TAT (In Days)	11	9	9	5	4
Item Count	11 Items	1 Item	1 Item	8 Items	2 Items

The respective items which were having PO Raised TAT more than 3 days are as follows:

IRON - (DIMENSION) , CODE DF85
ABS DIMENSION ABSORBANCE 240 T- DF179
IRON CALIBRATOR - 10445010
SGPT/ALT - 5*50T- 1655281
ABX LYSEBIO (0.4LTR)
CALIBRATOR KIT 4- ALB,TP,BU,BC,TBIL,FE,TIBC - 1 SET- 1204668
ABX EOSINOFIX (1 LTR)
ALBUMIN (ALB) - 5*50T- 8196057
DESICCANT PACK - 2 SETS- 1250232
GGT - 5*50T- 8257289
HUMIDITY PACK - 2 SETS- 1247873



**Delay in
Approval**

ABX DILUENT (20 ltrs)



**Technical
Issue(Warehouse
Indent)**

ADVIA CEN VB12 DILUENT
2PK Code:110321 Siemens
2x5 mL's Pack



**Delay in PO Raise
due to excess time
taken for Finalizing
Item with Vendor**

MAGLUMI Reaction Modules (2304 tests) 630003 2304 T
TRIGLYCERIDES (TRIG) - 5*60T- 1336544
TRNF - TRANSFERRIN 120 T - DF103
BLOOD CULTURE BOTTLES (AEROBIC), REF:442192 (B D)
ALDL CALIBRATOR - DC131 (6 x 1.0 mL) Siemens D-10 HBA1C REORDER PACK 400T CAT 220-0101 BIORAD
E250 REFERENCE FLUID- 1 BOX OF 30 VIALS - 1 VAILS- 1765304
MULTISAMPLE NEEDLE 22G - 360210



**Delay in PO
Raise due to
excess
workload**

ABX CLEANER (1 LTR)
ABX BASOLYSE II (1 ltr)



**Technical
Issue(Not able to
find the Indent
Store)**

We had find out those Locations which were having PO Raised TAT more than 3 days both Location wise and Item wise.

Locations with ITEM WISE high PO Raised TAT	
Out of 24 Items which had delay in PO raised TAT	Location name
12 items	Mangalore Satellite Lab
5 items	Koramangala Regional Lab
2 items	Viman Nagar Regional Lab
2 items	Vijayawada Regional Lab
1 item	Kondapur Regional Lab
1 item	Indrapuram
1 item	Bowenpally Regional Lab

(Source- Data from Item wise TAT list)

Locations with LOCATION WISE high PO Raised TAT
Bowenpally Regional Lab
Indrapuram
Koramangala Regional Lab
Mangalore Satellite Lab
Vijayawada Regional Lab
Viman Nagar Regional Lab
Vizag Satellite Lab
Warangal Satellite Lab

(Source- Data from Location wise TAT list)

Out of these locations, We had taken only those common locations which were having PO Raised TAT more than 3 days both Location wise as well as Item wise to focus on exact locations to reduce the delay in PO Raised TAT.

Those common locations are as follows:

Vijayawada Regional Lab
Indrapuram
Bowenpally Regional Lab
Koramangala Regional Lab
Mangalore Satellite Lab
Viman Nagar Regional Lab



**Focus on these
Locations only as
They have High
Location wise PO
Raised TAT and High
Item wise PO Raised
TAT**

C) DELAY IN DELIVERY TAT (In days)

Methodology:

As per Standard Operative Procedures and guidelines of Apollo Diagnostics, The Standard Delivery TAT was 15 days.

So to find out the Delay in Delivery TAT, We had taken data of all 345 items from item wise TAT list and out of those, we have selected those items, which were having Delivery TAT more than 15 days

(Source- SOPs of Lab store Department and Data from Insta Software)

So We observed that,

Out of 345 Items, 159 Items (46%) had Delivery TAT more than 15 days

Those 159 items, which are having Delivery TAT more than 15 days are as follows:

ADVIA CENTAUR CP RGT 1 & 2 ,CODE : 497043 SIEMENS - 1000T
ADVIA CENTAUR PROBE TIPS Code:078-K139-01 Siemens 6480/BOX's Pack
ACS:CENTAUR SAMPLE CUPS Code:078-K137-01 Siemens 1500/BOX's Pack
PROGESTERON - (CENTAUR) , CODE 10310305
HA1C -GLYCATED HAEMOGLOBIN (INCLUDING CALIBRATORS) DF105A 120T (SIEMENS).
BILE ESCULIN AGAR ,REF NO: M340 (Himedia) 250 g
Mannitol Motility Test MediumM770-100G
Simmons Citrate Agar Slant SL034 - 10slants
TRIPLE SUGAR IRON AGAR ,REF NO: MM021 (Himedia) 250 g
UREASE AGAR BASE ,REF NO: M112 (Himedia) 250 g
GARBAGE COVER 30X 36 YELLOW WITHOUT PRINTING
ADVIA CEN ThCG DILUENT 2PK CODE:117143 2x25 ml' s Pack

MR/VP BROTH ,REF NO: LQ082 (Himedia) 250 g
GARBAGE COVER MED YELLOW (24x30)
FEM HAND WASH 5ltr
AcetoneMB179-500ML
Albert's Stain AS001-125ML
AMPICILLIN (HIMEDIA) 5X50 Disc SD002
ANTIBIOTIC ZONE SCALE ,REF NO: PW-096 (Himedia) 1
ANTIBIOTIC ZONE SCALE -C ,REF NO: PW297 (Himedia) 1
Azithromycin SD204-1VL
Aztreonam SD212-1VL
Bacitracin SD003-1VL
Cefoperazone SD072-1VL

Cefoperazone/Sulbactam
Cefoxitin SD041-1VL
Ceftazidime SD062-1VL
Clindamycin SD051-1VL
COTRIMAXAZOLE ,REF NO: SD115 (Himedia) 1 Pack
DORIPENEM ,REF NO: SD283 (Himedia) 1 Pack
ERYTHROMYCIN (HIMEDIA) 5X50 Disc SD013
GENTAMICIN G ,REF NO: SD195 (Himedia) 1 Pack
Gram's IodineS013-125ML
Imipenem SD073-1VL
INDIAN INK ,REF NO: GRM5259 (Himedia) 23 mL
Kovacs' Indole ReagentR008-100ML

Levofloxacin SD216-1VL
Linezolid SD215-1VL
MEROPENEM (MRP) (HIMEDIA) 5X50 Disc SD727
NALIDIXIC ACID ,REF NO: SD021 (Himedia) 1 Pack
Nitrofurantoin SD023-1VL
Norfloxacin SD057-1VL
NOVABIOCIN ,REF NO: SD121 (Himedia) 1 Pack
Optochin (5 mcg)?(50 discs / vl)DD009-1VL
PENCILLIN G ,REF NO: SD028 (Himedia) 1 Pack
Peptone Water LQ089-50X5ML
Piperacillin/Tazobactam SD210-1VL
POLYMYXIN B ,REF NO: SD029 (Himedia) 1 Pack

ANTI-D-IGG/IGM- RHEOFINAL--1 BOTTLE - 1X12ML - TULIP
COOMB'S ANTISERA-05 ML PACK - 1X5ML - TULIP
COVER GLASS SLIP (ASTRA SCIENTIFIC) 10PACKS (22X22)
ESTRADOIL - (CENTAUR) , CODE 10315326
MALCARD-ANTIGEN JAYAMITHRA 25T
RHELAX-RF (TULIP)25T
URINE PREGNANCY KIT - 50 T - PREGANEWS
CALIBRATOR "B" Code:00650577 Siemens 2/pk's Pack
FACE MASK
SYRINGES 2ML DISPOVAN - 1
ADVIA CENTAUR PROLACTIN Code:110758 Siemens 250's Pack
NORMAL SALINE 1 LIT

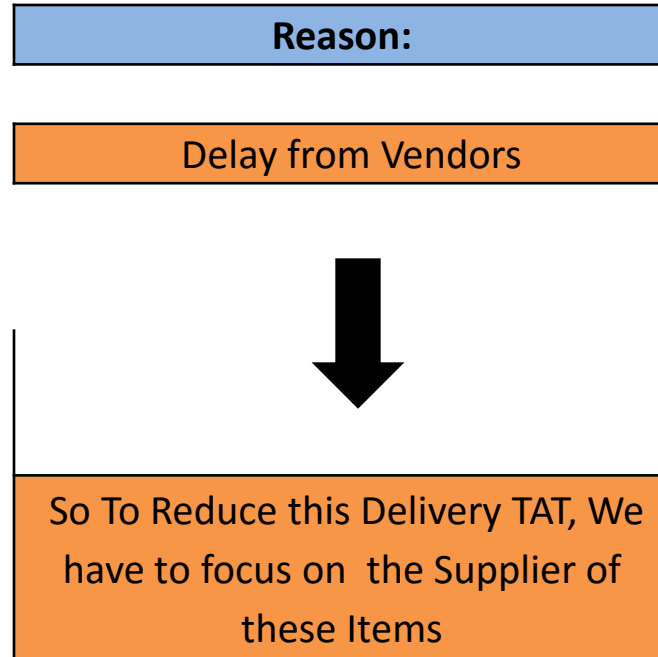
ADVIA CEN T3/T4/VB12 ANC RGT Code:110329 Siemens 6x25 mL's Pack
MULTISAMPLE NEEDLE 22G - 360210
ADVIA CENTAUR Total hCG Code:00644461 Siemens 250's Pack
ABX EOSINOFIX (1 LTR)
L2KAP2- AFP KIT,200 T , CODE:10381187 (IMMULITE 2K)
L2KCG2- HCG KIT,200 T , CODE:10381206 (IMMULITE 2K)
L2KCM2-CMV IGM KIT,200 T , CODE:10381320 (IMMULITE 2K)
L2KCVG2-IML. 2000 CMV IGG KIT , 200 T (IMMULITE 2K)
L2KRM2- RUBELLA IGM KIT,200 T , CODE:10381327 (IMMULITE 2K)
L2KRUB2- RUBELLA QUANT IGG KIT,200 T , CODE:10381338 (IMMULITE 2K)
L2KTXP2-IML. 2000 TOXO. QUANT. IGG KIT ,200 T , CODE:10381323 (IMMULITE 2K)
HAND CARE GLOVES-M

Safranin, 0.5% w/v S027-125ML
TEICOPLANIN ,REF NO: SD213 (Himedia) 1 Pack
TETRACYCLINE (HIMEDIA) 5X50 Disc SD037
TOBRAMYCIN ,REF NO: SD044 (Himedia) 1 Pack
VANCOMYCIN (HIMEDIA) 5X50 Disc SD045
CALIBRATOR "E" Code:04634452 Siemens 2/pk's Pack
SODIUM CHLORIDE 500GM
GLASS TEST TUBES (ASTRA SCIENTIFIC) 12X75 100'SPACK
Disposable Water Glass 250ML
REYNOLDS PEN 0.45
BARCODE LABEL STICKERS (2 "x 1") - 2000 Per Roll

ABX CLEANER (1 LTR)
ABX LYSEBIO (0.4LTR)
SODIUM HYPOCHLORITE 5% SOLUTION 5LTR
ABX DILUENT (20 ltrs)
ADVI CENTAUR FT4 250T- Code : 10282219
HCG SAMPLE DILUENT ; L2CGZ , CAT NO: 10387051, (1 x 25 ML)
MULTI DILUENT 2 ; L2M2Z4 , CAT NO: 10387058, (1 x 55 ML)
REACTION TUBES -1000 REACTIN TUBES, CAT NO:LRXT , (SIEMENS)
AST- ASPARTATE AMINOTRANSFERASE(GOT) 360T (SIEMENS) DF41A
Tissue Paper 100Sheet
ADVIA CEN MULTI DILUENT 11 2 X 5ML - 117228

ADVIA CENTAUR TSH Code:110734 Siemens 500's Pack
ADVIA CENTAUR VB12 Code:110748 Siemens 500's Pack
ABX BASOLYSE II (1 ltr)
CALIBRATOR 30 - 10379810
TROPONIN T 5 T ROCHE
ADIVA CENTAUR VITD 100 TEST Code:10699201 Pack:100s test
ADVIA CENTAUR T3 Code:110742 Siemens 400's Pack
ADVIA CENTAUR TESTOSTERONE Code:110782 Siemens 50's Pack
ADVIA CENTAUR FT3 Code:119780 Siemens 50's Pack
CALIBRATOR "Q" Code:118220 Siemens 2/pk's Pack

The Reason for Delay in Delivery TAT is the Delay from Vendors



So, To find out the actual problem causing Vendors,

We had find out those common Vendors whose Delivery TAT was high in maximum Locations as well as who were supplying higher number of items.

Vendor Name(With High Location Wise Delivery TAT)	Count Of Locations
IRIS HEALTHCARE TECHNOLOGIES PVT LTD	11
Indian Hospitex Pvt Ltd.	5
BGLR - INDIAN HOSPITEX PRIVATE LTD	4
HORIBA INDIA PVT LTD	3
Vijay Stationary Mart	3
Artek Scientific (I) Corporation	2
CONTROL P TECHNOLOGIES	2
GLOBAL OFFICE AUTOMATION	2
Insight Diagnostics	2
S R Lab Products	2
SAFA DIAGNOSTICS	2
Tulasi Scientific Instruments	2
Beckman Coulter India Pvt Ltd.	1
BIO TEC	1
BIO-RAD LABORATORIES (I) PVT. LTD.	1
Colloq Marketing pvt ltd	1
GANESH SCIENTIFIC SUPPLIERS	1
Invitro Biosystems Pvt Ltd	1
LIFE-LINE ENTERPRISES	1
M/s. TECHFINE BIOMEDICALS,	1
Mariam Plastic Industries	1
NATIONAL SCIENTIFIC PRODUCTS	1
Origami Cellulo Pvt Ltd	1
ORTHO CLINICAL DIAGNOSTICS	1
Pragathi Enterprises	1
QUISQUALIS SCIENTIFICS	1
R ENTERPRISES	1
Raghava Bio-Medicals	1
Rohan Biochem	1
Sri Balaji General Trader	1
Trade Image	1

(Source- Data from location wise TAT
list)

Vendor Name((With High Item Wise Delivery TAT)	Count Of Items
IRIS HEALTHCARE TECHNOLOGIES PVT LTD	72
NATIONAL SCIENTIFIC PRODUCTS	19
Artek Scientific (I) Corporation	10
R ENTERPRISES	9
HORIBA INDIA PVT LTD	5
QUISQUALIS SCIENTIFICS	5
Beckman Coulter India Pvt Ltd.	4
Indian Hospitex Pvt Ltd.	4
Rohan Biochem	4
S R Lab Products	3
BGLR - INDIAN HOSPITEX PRIVATE LTD	2
GANESH SCIENTIFIC SUPPLIERS	2
GLOBAL OFFICE AUTOMATION	2
Pragathi Enterprises	2
SAFA DIAGNOSTICS	2
Tulasi Scientific Instruments	2
BIO TEC	1
BIO-RAD LABORATORIES (I) PVT. LTD.	1
CONTROL P TECHNOLOGIES	1
Indian Hospitex Private Limited.	1
Invitro Biosystems Pvt Ltd	1
LIFE-LINE ENTERPRISES	1
Mariam Plastic Industries	1
Origami Cellulo Pvt Ltd	1
Raghava Bio-Medicals	1
Sri Balaji General Trader	1
Trade Image	1
Vijay Stationary Mart	1

(Source- Data from Item wise TAT
list)

Those Target common Vendors were as follows:

Vendor Name	Locations	Items
IRIS HEALTHCARE TECHNOLOGIES PVT LTD	11	74 items
Indian Hospitex Pvt Ltd.	5	5 items
HORIBA INDIA PVT LTD	3	5 items
Artek Scientific (I) Corporation	2	10 items



**Focus on these
Vendors only as They
have High Location
wise Delivery TAT and
High Item wise
Delivery TAT**

Objective 2: To Optimize the Start up laboratory budget

For this, We had taken data from January month Start up kit budget of Old Lab (Mangalore Lab) and reduced that Start up kit budget for New start up lab by following 4 means of Inventory Optimization :

(Source- Data from Insta Software)

- A. By removing extra items
- B. By optimizing item wise consumption per test
- C. By changing vendors with high items price
- D. By negotiating with same vendors to decrease the item price

The findings are as follows:

A) By removing extra items which were not required in New Start Up Lab

Item Name(which were Extra as per start up lab budget)	Quantity	Vendor Name
ABX MINICLEAN 1L ; Cat No(403010)	3	HORIBA INDIA PVT LTD
ABX MINIDIL 20 LTR ; Cat No(70005)	1	HORIBA INDIA PVT LTD
ABX MINOTROL 2X2ML ; Cat No(2042208)	2	HORIBA INDIA PVT LTD
ADVIA CENTAUR VIT.B12 DTT/REL AGENT (1X2X1) (121093)	1	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
ADVIA CENTAUR XP Acid/Base Reagent 1&2 Code:10310026 5000'test/Pack (2x1500ml)	1	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
BARIUM CHLORIDE 500ML	1	Tulasi Scientific Instruments
BLUE TIPS (ASTRA SCIENTIFIC) 500'SPACK	1	Tulasi Scientific Instruments
CALIBRATOR "C" Code:672172 Siemens 2/pk's Pack	5	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
GGT - 5*50T- 8257289	15	Southern marketing Agencies
PHOSPHOROUS (PHOS) - 5*60T- 1513209	5	Southern marketing Agencies
SURGICAL SPIRIT 5 LIT	10	Tulasi Scientific Instruments
URINE ANALYSIS CONTROL BIORAD 12X12ML (LEVEL I AND LEVEL 2)(CAT NO: 435)	1	BIO-RAD LABORATORIES (I) PVT. LTD.
VDRL (RECKON) 50'SPACK.	1	Tulasi Scientific Instruments

(Source- Data from Insta Software)

13 Items

these items were not required as
per New start Up Lab
Consumption



So these items were excluded
from the New Start Up Kit List

B) By optimizing item wise consumption per test

Item Name(Which were excess in Quantity as per Start up lab budget)	Quantity	Vendor Name
ALKALINE PHOSPHATASE (ALKP) - 5*60T- 1053180	5	Southern marketing Agencies
AST/GOT - 5*60T- 8433815	10	Southern marketing Agencies
BUBC - 5*60T- 8383051	5	Southern marketing Agencies
CALCIUM (CA) - 5*60T- 1450261	5	Southern marketing Agencies
CHLORIDE (CL) - 5*50T- 8445207	10	Southern marketing Agencies
CHOLESTROL (CHOL) - 5*60T- 1669829	5	Southern marketing Agencies
DISPOSABLE ESR PIPETTES	300	Tulasi Scientific Instruments
E250 REFERENCE FLUID- 1 BOX OF 30 VIALS - 1 VAILS- 1765304	3	Southern marketing Agencies
HCV(J.MITRA) 50'SPACK	3	Tulasi Scientific Instruments
HEMOSPOT KIT (CORAL)	3	Invitro Biosystems Pvt Ltd
MICRO SLIDES 50S	3	Tulasi Scientific Instruments
POTASSIUM (K+) - 5*50T- 8157596	5	Southern marketing Agencies
WIDAL (TULIP) 4X5ML	5	Tulasi Scientific Instruments
YELLOW TIPS (ASTRA SCIENTIFIC) 1000'SPACK	2	Tulasi Scientific Instruments
S.S. Spirit Lamp LA873-1NO	4	Tulasi Scientific Instruments
WIDAL (TULIP) 4X5ML	5	Tulasi Scientific Instruments
ABX MINOCLARE	3	HORIBA INDIA PVT LTD
ADVIA CEN T3/T4/VB12 ANC RGT Code:110329 Siemens 6x25 mL's Pack	2	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
ALBUMIN (ALB) - 5*50T- 8196057	5	Southern marketing Agencies
BLOOD UREA NITROGEN (BUN) - 5*60T- 8102204	5	Southern marketing Agencies
CALIBRATOR KIT 25-DHDL - 1SET- 6801896	2	Southern marketing Agencies
CALIBRATOR "A" Code:672170 Siemens 2/pk's Pack	3	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
CREATININE (CRSC) - 5*60T- 8141947	10	Southern marketing Agencies
GLUCOSE (GLU) - 5*60T- 1707801	15	Southern marketing Agencies
S.S. Spirit Lamp LA873-1NO	4	Tulasi Scientific Instruments

(Source- Data from Insta Software)

25 Items	These items were in higher quantity
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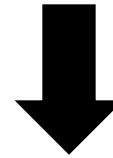
So We reduced the quantity of these items

C) By changing vendors with high item price

Item Name(for those we had changed Vendors due to high item price)	Quantity	Vendor Name
ALKALINE PHOSPHATASE (ALKP) - 5*60T- 1053180	5	Southern marketing Agencies
AST/GOT - 5*60T- 8433815	10	Southern marketing Agencies
BLOOD GROUPING KIT (TULIP).	1	Invitro Biosystems Pvt Ltd
BUBC - 5*60T- 8383051	5	Southern marketing Agencies
CALCIUM (CA) - 5*60T- 1450261	5	Southern marketing Agencies
CALIBRATOR KIT 4-ALB,TP,BU,BC,TBIL,FE,TIBC - 1 SET- 1204668	1	Southern marketing Agencies
CHLORIDE (CL) - 5*50T- 8445207	10	Southern marketing Agencies
CHOLESTROL (CHOL) - 5*60T- 1669829	5	Southern marketing Agencies
COVER SLIPS (BLUE STAR) 1X20PACK 22MMX22MM	1	Invitro Biosystems Pvt Ltd
DENGUE DUO NS1& IGG& IGM (JAYMITHRA) 10T	1	Tulasi Scientific Instruments
DISPOSABLE ESR PIPETTES	300	Tulasi Scientific Instruments
Double Distilled Water 5ltr	3	Tulasi Scientific Instruments
E250 REFERENCE FLUID- 1 BOX OF 30 VIALS - 1 VAILS- 1765304	3	Southern marketing Agencies
HCV(J.MITRA) 50'SPACK	3	Tulasi Scientific Instruments
HEMOSPOT KIT (CORAL)	3	Invitro Biosystems Pvt Ltd
LEISHMANIA STAIN-500ML.	1	Tulasi Scientific Instruments
MICRO SLIDES 50S	3	Tulasi Scientific Instruments
MULTISTIX SG 100 STRIPS, Siemens	2	Tulasi Scientific Instruments
POTASSIUM (K+) - 5*50T- 8157596	5	Southern marketing Agencies
RETICULOCYTE DILUTING FLUID " 100 ML .	1	Tulasi Scientific Instruments
Rhelax RF (Tulip) 25 T	1	Tulasi Scientific Instruments
WIDAL (TULIP) 4X5ML	5	Tulasi Scientific Instruments
YELLOW TIPS (ASTRA SCIENTIFIC) 1000'SPACK	2	Tulasi Scientific Instruments

(Source- Data from Insta Software)

23 Items	These Item's price was higher
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So We changed the Vendors for
these Items and selected the
Vendors with the low items price

C) By negotiating with same vendors to decrease the item price

Item Name(For those we negotiated with Vendors for decreasing item price)	Quantity	Vendor Name
7% BSA SOLUTION - 12 * 5 ML- 8262487	1	Southern marketing Agencies
ABX MINOCAL 1X2ML ; Cat No(2032002)	1	HORIBA INDIA PVT LTD
ABX MINOCLARE	3	HORIBA INDIA PVT LTD
ACS:CENTAUR CUVETTES Code:078-K138-01 Siemens 3000/BOX's Pack	1	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
ADVIA CEN MULTI -DILUENT 1 6PK Code:110313 Siemens 6x25 mL's Pack	1	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
ADVIA CEN T3/T4/VB12 ANC RGT Code:110329 Siemens 6x25 mL's Pack	2	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
ALBUMIN (ALB) - 5*50T- 8196057	5	Southern marketing Agencies
AVITEX ASO 25 TESTS OD153/A OMEGA 90153AV2	1	Tulasi Scientific Instruments
BLOOD UREA NITROGEN (BUN) - 5*60T- 8102204	5	Southern marketing Agencies
CALIBRATOR KIT 25-DHDL - 1SET- 6801896	2	Southern marketing Agencies
CALIBRATOR "A" Code:672170 Siemens 2/pk's Pack	3	IRIS HEALTHCARE TECHNOLOGIES PVT LTD
Ceder wood Oil	1	Tulasi Scientific Instruments
CREATININE (CRSC) - 5*60T- 8141947	10	Southern marketing Agencies
CRP 25T SPAN OMEGA-90143AV2	1	Tulasi Scientific Instruments
GLASS TEST TUBES (ASTRA SCIENTIFIC) 12X75 100'SPACK	3	Tulasi Scientific Instruments
GLUCOSE (GLU) - 5*60T- 1707801	15	Southern marketing Agencies
MICRO TIPS - 1 BOX OF 250 TIPS- 1474030	1	Southern marketing Agencies
Neubaur counting Chamber	1	Tulasi Scientific Instruments
S.S. Spirit Lamp LA873-1NO	4	Tulasi Scientific Instruments
VERSA TIP BOX - 1000 TIPS- 6801715	1	Southern marketing Agencies

(Source- Data from Insta Software)

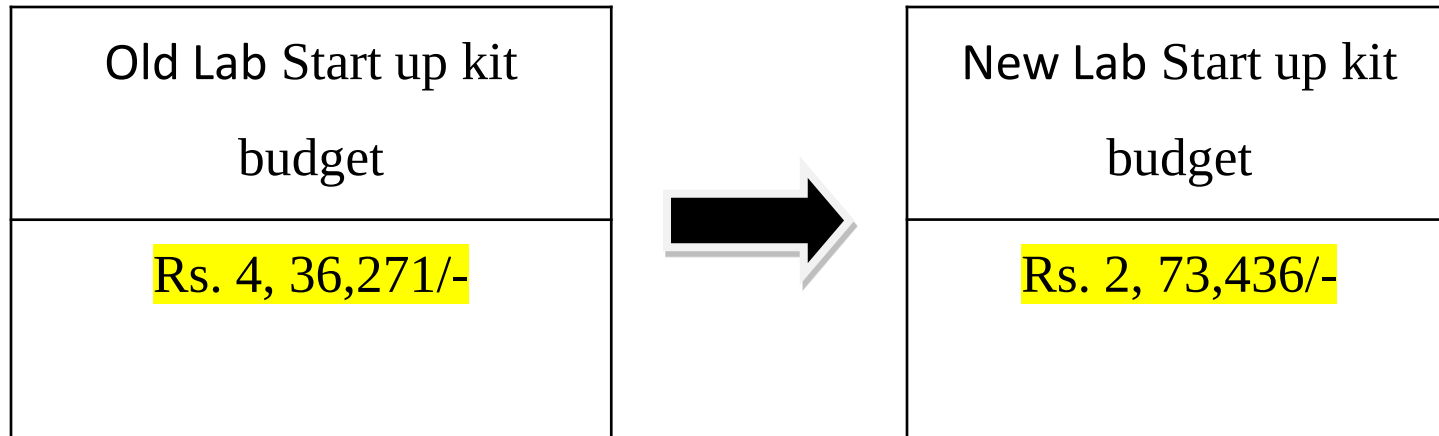
20 Items	These Item's price is higher
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So We negotiated with these
item's Vendors to decrease the
price

RESULT:

We had reduced that Start up kit budget from
Rs. 4, 36,271/- to Rs. 2, 73,436/-



Objective 3: To analyze stock movements in the store and to classify the items on the basis of their consumption value and movement

To find out this, We had taken data of all 965 items of last 5 months (November, December, January, February and March) and done analysis by following 3 means of [inventory](#) categorization methods.

- A. ABC Analysis
- B. FSN Analysis
- C. ABC- FSN Matrix

A) ABC ANALYSIS:

ABC analysis is an inventory categorization method which consists of dividing items into three categories, according to their rate of consumption that is A, B and C: A being the most valuable items, C being the least valuable ones.

A-items are items which **annual consumption value is the highest**. The top 70-80% of the annual consumption value of the company typically accounts for only 10-20% of total inventory items in general.

B-items are the interclass items, with a **medium consumption value**. Those 15-25% of annual consumption value typically accounts for 30% of total inventory items in general.

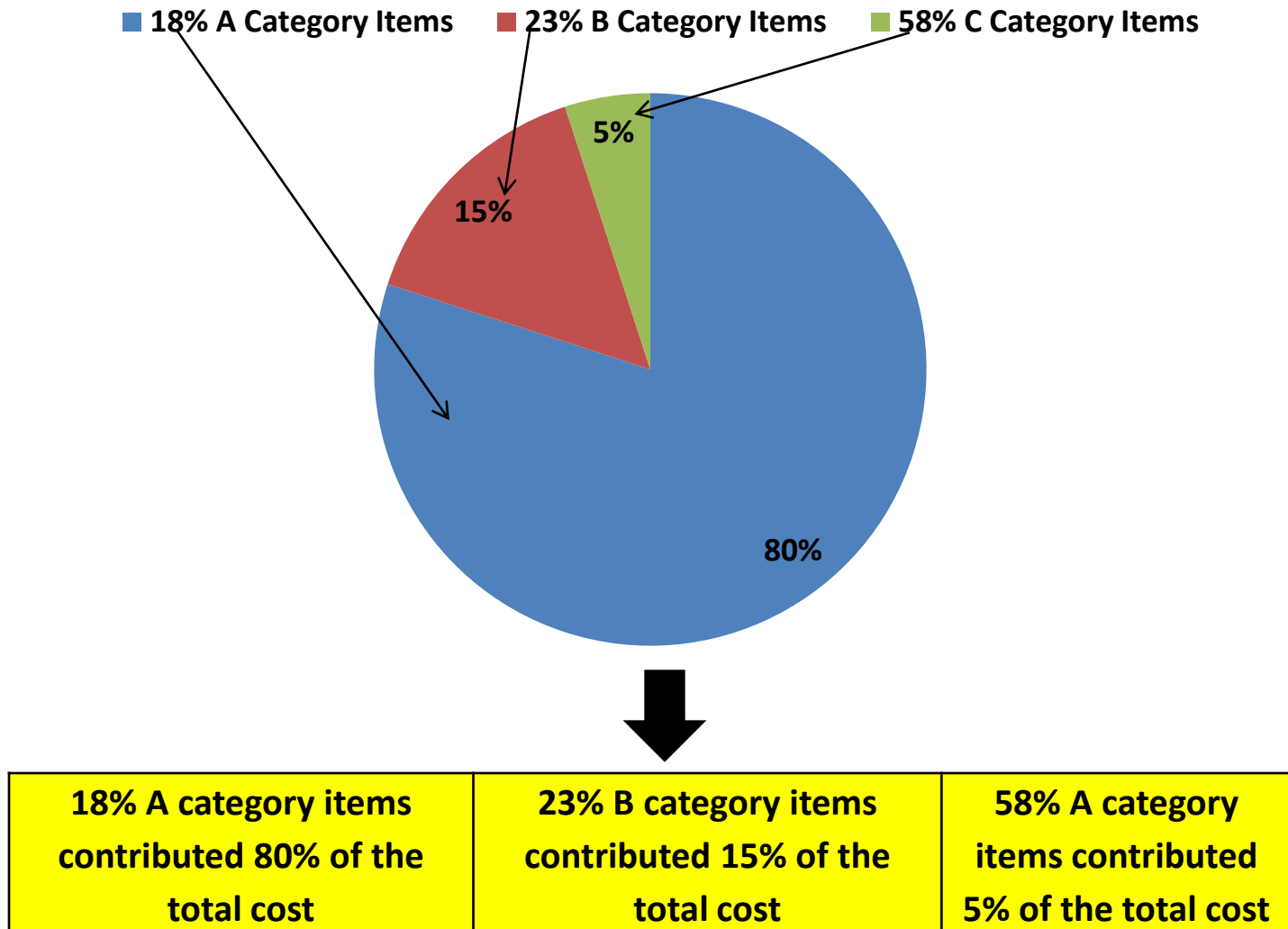
C-items are, on the contrary, items with the **lowest consumption value**. The lower 5% of the annual consumption value typically accounts for 50% of total inventory items in general.

So after ABC Analysis of all 965 items, The findings were as follows:

	ABC ANALYSIS	
178 items	A category	18%
226 items	B category	23%
561 items	C category	58%

(Source- Data from Insta Software)

ABC ANALYSIS



(Source- Data from Insta Software)

Conclusion:

A-items:

- **A-items** should have **tight inventory control**.
- It should have **more secured storage areas** and **better sales forecasts**.
- Reorders should be **frequent**, with weekly or even daily reorder. **Avoiding stock-outs** on A-items is a priority.

B-items:

B-items benefit from an intermediate status between A and C. An important aspect of class B is the **monitoring** of potential evolution toward class A or, in the contrary, toward the class C.

C-items:

- Reordering **C-items** is made less frequently. A typically inventory policy for C-items consist of having only 1 unit on hand, and of reordering **only when an actual purchase is made**.
- This approach leads to stock-out situation after each purchase which can be **an acceptable situation**, as the C-items present both low demand and higher risk of **excessive inventory costs**.

B) **FSN ANALYSIS**:

In **FSN analysis**, items are classified according to their rate of consumption. The items are classified broadly into three groups:

F – Fast moving

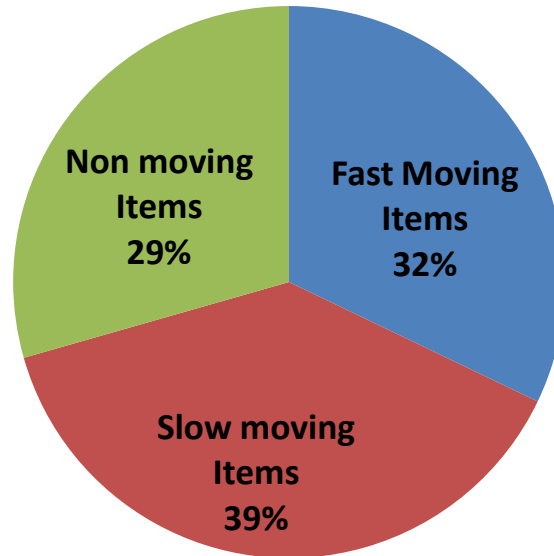
S – Slow moving

N – Non-moving

Classification is based on the pattern of Issues from stores and is useful in controlling obsolescence. It helps to avoid investments in Non Moving items. It is also useful in facilitating timely control.

So after FSN Analysis of all 965 items, The findings were as follows:

FSN ANALYSIS



	FSN ANALYSIS	
310 Items	Fast Moving Items	32%
371 Items	Slow moving Items	38%
284 Items	Non moving Items	29%

(Source- Data from Insta Software)

Conclusion:

Fast moving Items:

The items to be considered to be “active” can be reviewed regularly on more frequent basis

Slow moving Items:

The items to be considered to be “less active” can be reviewed once in two- three months.

Non moving Items:

Non-moving items whose consumption is “nil” or almost in significant. So avoid investment in Non Moving Items

C) ABC- FSN Matrix:

Coupling of ABC and FSN analysis is an efficient and effective tool to classify the Inventory Items. The matrix retrieved from the combination of these two classification methods can ease up the inventory management by narrowing down number of items that need special attention and high level management.

So after Coupling of ABC and FSN analyses of all 965 items, The findings were as follows:

ABC- FSN Matrix

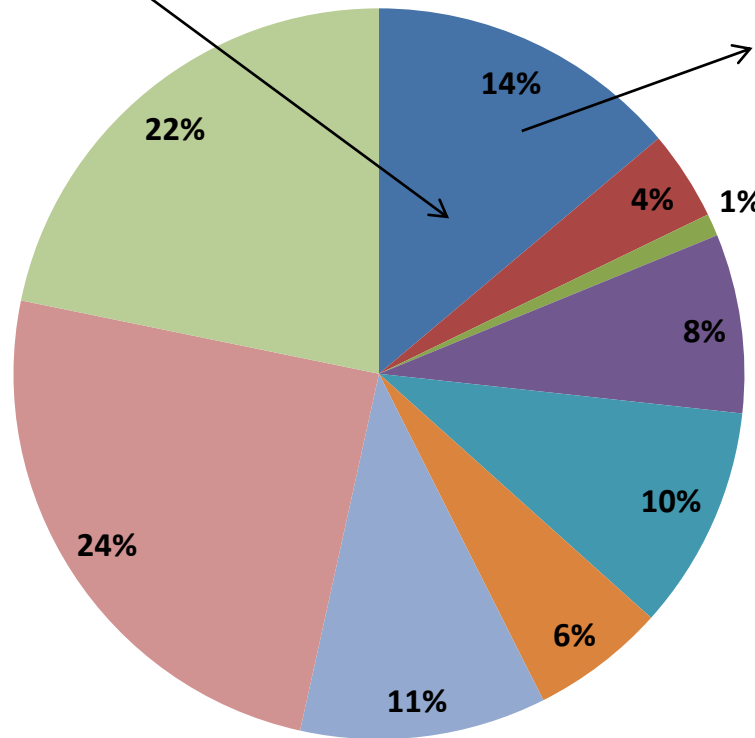
	Fast Moving	slow moving	Non moving
A category	131(AF)	36(AS)	12(AN)
B category	75(BF)	95(BS)	57(BN)
C category	104(CF)	240(CS)	217(CN)

	Fast Moving	slow moving	Non moving
A category	14%(AF)	4%(AS)	1%(AN)
B category	8%(BF)	10%(BS)	6%(BN)
C category	11%(CF)	25%(CS)	22%(CN)

(Source- Data from Insta Software)

ABC- FSN MATRIX

■ AF ■ AS ■ AN ■ BF ■ BS ■ BN ■ CF ■ CS ■ CN



Focus on this (AF) category items more as they were fast moving and consumed maximum budget which required high management Priority and Stringent Control

(Source- Data from Insta Software)

Those (AF) Category items which were fast moving and maximum budget consuming and which required high management Priority and Stringent Control and Regular Follow up are as follows:

ADVIA CENTAUR FT3 Code:119780 Siemens 50's Pack
HAND CARE GLOVES - 100.S(NON-STE)
SODIUM (NA) - 5*50T- 8379034
POTASSIUM (K+) - 5*50T- 8157596
GLUCOSE (GLU) - 5*60T- 1707801
ACT 5 DIFF DILUENT 20LTR 8547169
PHOSPHOROUS (PHOS) - 5*60T- 1513209
HCV TRIDOT 100T
PAN MALARIA CARD 25 TEST- J.MITRA
STERILE COTTON SWAB, [PKT / 100], CAT.PW003, HM
TRIGLYCERIDES (TRIG) - 5*60T- 1336544

TOTAL BILIRUBIN (TBIL) - 5*60T- 8159931
DENGUE DUO NS1&IgG&IgM (SD) 10T
ADVIA CENTAUR VIT.B12 DTT/REL AGENT (1X2X1) (121093)
ALKALINE PHOSPHATASE (ALKP) - 5*60T- 1053180
URINARY DRUG TEST 5 PANEL (AMP,COC,MOR,PCP,THC) 25T.
HBSAG ES 100'S PACK CODE:6802131
MICRO TIPS 200-1000 $\frac{1}{2}$ " BIG (500'SPACK).
ABX PENTRA - 60C+ CONTROLS HIGH
ABX PENTRA - 60C+ CONTROLS LOW
URINE CONTAINER 30ML (STERILE) 100'SPACK
CALIBRATOR "Q" Code:118220 Siemens 2/pk's Pack

CREA-CREATININE 480T (SIEMENS) DF33A
ABX LYSEBIO 1 LTR ; Cat No(906012)
URCA-URIC ACID 480T (SIEMENS) DF77
TBI- TOTAL BILIRUBIN 480T (SIEMENS) DF167
THERMAL PRINTER PAPER FOR XPAND/ARX/XL/RXL/MAX (4 ROLLS 97MTR EACH) (SIEMENS) D829
BARCODE LABEL STICKERS (2 "x 1") - 2000 Per Roll
PHOS-PHOSPHORUS 480T (SIEMENS) DF61.
ACT 5 DIFF FIX 1 LTR 8547171
EXAMINATION GLOVES (M)
ABX MINICLEAN 1L ; Cat No(403010)
BAND AID REGULAR (HANSA PLAST)

(Source- Data from Insta Software)

D-10 HBA1C REORDER PACK 400T CAT 220-0101 BIORAD
AHDL (REVISED) NON- PRETREATMENT HDL (SIEMENS) 240T DF48B
Combur 10M test 100Strips Make:ROCHE
CUVETTE CATRIDGES D828 (12000 CUVETTES).
ADIVA CENTAUR VITD 100 TEST Code:10699201 Pack:100s test
ADVIA CENTAUR XP WASH 1Code:03773025 Pack:2x2500ml
MULTISTIX SG 100 STRIPS, Siemens
White Paper A4 500Sheet
ANTI HIV 1+2 REAGENT 100'S PACK CODE:1241850
ADVIA CENTAUR TSH Code:110734 Siemens 500's Pack
VACUTAINER EDTA (B.D) 100'SPACK 367856

ADVIA CENTAUR PSA Code:118156 Siemens 100's Pack
ADVIA CENTAUR T4 Code:110736 Siemens 500's Pack
Multisample Needle 22g 367210 B.D
ADVIA CENTAUR T3 Code:110742 Siemens 400's Pack
GLU-GLUCOSE 1440T (SIEMENS) DF40
URINE CONTAINER-50ML(STERILE)
ADVIA CENTAUR VB12 Code:110748 Siemens 500's Pack
CHOL-CHOLESTEROL 480T (SIEMENS) DF27
DENGUE DUO NS1& IGG& IGM (JAYMITHRA) 10T
VACUTAINER PLAIN RED 4ML, 13X75MM CAT NO 367812 BD Box = 100
PAP SMEAR KIT

Snappack For Electrolyte Analyser Model No: 9180
TGL-TRIGLYCERIDES 480T (SIEMENS) DF69A
DBI- DIRECT BILIRUBIN 320T (SIEMENS) DF125
ANTI HCV 100'S PACK CODE: 1318450
ACS:CENTAUR CUVETTES Code:078- K138-01 Siemens 3000/BOX's Pack
VACUTAINER SODIUM FLOURIDE- 367587 (100'SPACK).
DIRECT HDL - 5*60T- 6801895
ACT 5 DIFF WBC LYSE 1 LTR 8547170
ADVIA CENTAUR PROLACTIN Code:110758 Siemens 250's Pack
HA1C -GLYCATED HAEMOGLOBIN (INCLUDING CALIBRATORS) DF105A 120T (SIEMENS).
MAINTENANCE PACK CODE:1831312

(Source- Data from Insta Software)

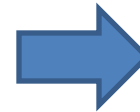
BLOOD UREA NITROGEN (BUN) - 5*60T-8102204	LATEX EXAMINATION GLOVES NO POWDER PIONEER (Medium) 6.5 Size
CHLORIDE (CL) - 5*50T-8445207	6 Drug Pannel KIT[Amphetamine+Barbiturates+Benzodiazepines+Opiates+cocaine+TetrahydroCannabinol]
URIC ACID (URIC) - 5*60T-1943927	BUBC - 5*60T- 8383051
Home Collection Bag Small (18x12x8cm)	CA-CALCIUM 480T (SIEMENS) DF23A
AST/GOT - 5*60T-8433815	GGT - 5*50T- 8257289
STERILLIUM 500 ml	MAGLUMI TSH 130203001M 100T
APOLLO DIAGNOSTICS A4 SIZE REPORT PAPER	CRP LATEX(EURO) 25T
CALCIUM (CA) - 5*60T-1450261	ANTI-HIV 1/2 CONTROL CODE: 6800586

Immunoassay Plus Trilevel Controls 12x5ml Cat no:370	TEST REQUISITION FORMS , A4 SIZE, SINGLE COLOUR PRINT AS PER APPROVED DESIGN.
00024330009/GEM 3K/ISE/GL 300 TEST CARTRIDGE	THERMAL PAPER ROLL 110MM
ABX MINIDIL 20 LTR ; Cat No(70005)	ADVIA CENTAUR XP Acid/Base Reagent 1&2 Code:10310026 5000'test/Pack (2x1500ml)
BIOCHEMISTRY ASSAYED CONTROL (LYPOCHECK) LEVEL-1 12X5 ML CAT. C-310-5 BIORAD	Double Distilled Water 5ltr
BIOCHEMISTRY ASSAYED CONTROL (LYPOCHECK) LEVEL-2 12X5 ML, CAT. C-315 BIO-RAD	ABX MINOCLARE
ADVIA CENTAUR FSH Code:110755 Siemens 100's Pack	HBSAG 25T [VIRUCHECK] ,ORCHID/TULIP CAT.30201025
Biovue A.B.C.D TL RevDil 400 Cat No:707100 Pack Size:20Cassettes	GGT-GAMMA GLUTAMYL TRANSFERASE 288T (SIEMENS) DF45A
ADVIA CENTAUR LH Code:110753 Siemens 60's Pack	MALB-MICROALBUMIN 80T (SIEMENS) DF114.

(Source- Data from Insta Software)

Those (AN) Category items which were Maximum budget consuming and Non moving are as follows:

MAGNESIUM (MG) - 5*60T- 8255093
JAT-TRANSFUSION MEDICINE, AUTOMATED (BD-CAP PT-15)
K-LIGAND ASSAY, GENERAL (BD-CAP PT-15)
UDS-URINE DRUG SCREENING (BD-CAP PT-15)
C3-CHEMISTRY (BD-CAP PT-15)
GH5I-HEAMOGLBIN A1C, 5 CHALLENGES (BD-CAP PT-15)
VM1-VIRAL MARKERS (BD-CAP PT-15)
Y-LIGAND ASSAY, SPECIAL (BD-CAP PT-15)
FL1-FLOW CYTOMETRY (BD-CAP PT-15)
MAGLUMI 25 OH-VITAMIN D CAT NO 130211004M 100T
FH10-HEMATOLOGY AUTOMATED DIFFRENTIAL COUNT (BD-CAP PT-15)



AN category items
should be in nil
stocks

Conclusion:

	Fast Moving Items	Slow moving Items	Non Moving Items
A category Items	(AF) Constant Control and Regular Follow up	(AS) should be in Moderate Stocks	(AN) should have Nil Stocks
B category Items	(BF) should be in Moderate Stocks	(BS) should be in Moderate Stocks	(BN) should be in Very Low Stocks
C category Items	(CF) should be in High Stocks	(CF) should be in Moderate Stocks	(CN) should be in Low Stocks

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