Internship Report on
An Analysis of Supply Chain Management of Vivo Communication Technology Company Limited

Submitted to:
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Date of Submission:

Letter of Transmittal

To

Dr. Mohammad Shibli Shahriar

Associate Professor

Daffodil International University

Dhaka, Bangladesh

Subject: Submission of the internship report on "An Analysis of Supply Chain Management of Vivo Communication Technology Company Limited "

Dear Sir,

I am very pleasure to submit the report titled "An Analysis of Supply Chain Management of Vivo Communication Technology Company Limited".

Here, I tried my best to make this report resourceful and informative. My main incentive was to plan this report according to your instructions and to get an amazing experience in compliance with your directions. It helps me to examine "vivo communication Technology Company Limited" supply chain management sector in a brooder way. Throughout my journey in this industry, I have been employed by this organization since 2019 in the SCM department, and I am confident that the report-writing I have done will be of great use to me in the future.

Additionally, I am extremely appreciative of the chance you gave me to showcase my talent. I hope you will recognize and be pleased with the work I put forward.

Sincerely,

Asif Mostafa

ID: 212-14-3352

MBA Program, Major in SCM

Department of Business Administration

Student's Declaration

I, Asif Mostafa, sincerely declare that after completing my internship at Vivo Communication Technology Company Limited, I wrote the internship report titled "An Analysis of Supply Chain Management of Vivo Communication Technology Company Limited." This report has never before been made available for an academic certificate degree at any other university, institution, or organization.

Also, I want to make sure that no part of this report is plagiarized from earlier work and that this report is just for academic purposes.

Approval Certificate

This is to confirm that Asif Mostafa's internship report, "An Analysis of Supply Chain Management of Vivo Communication Technology Company Limited," submitted for the MBA program at Daffodil International University and bearing the ID number 212-14-3352, is suitable for submission and presentation.

Asif Mostafa worked with Vivo Communication Technology Company Limited as a full-time worker. He has completed the Internship report under my supervision as a partial requirement for obtaining MBA degree.

Asif Mostafa bears a good moral character and a very pleasing personality. It has indeed been a great pleasure working with him. I wish him all success in life.

Dr. Mohammad Shibli Shahriar

Associate Professor

Department of Business Administration

Faculty of Business and Entrepreneurship

Daffodil International University

Acknowledgment

There is a proverb in English "Success usually comes to those who are too busy to be looking for it". Which means if you start something, you have to focus on this and give your best to make it perfect.

First of all, I would like to express my gratitude and respect to Almighty Allah who gave me an outstanding ability to complete the report within a short period successfully.

From the bottom of my heart, I want to express my gratitude to my honorable supervisor, Dr. Mohammad Shibli Shahriar, Associate Professor, Department of Business Administration, Daffodil International University, for his kind encouragement, direction, constructive supervision, instructions, and advice, as well as for inspiring me to complete this report.

Additionally, I'm grateful to the management of Vivo Communication Technology Company Ltd. for allowing me to complete my internship report while working for them. I appreciate the guidance I received from my supervisor at work, who also provided me with the opportunity to get real-world experience through this internship program.

I am grateful to Manager of Vivo Communication Technology Company Ltd. MD. Akram Hossain who provided me required information, documents, necessary assistance, valuable suggestion through his long working experiences and intellectual effort to prepare my internship report.

Lastly, I would thank all my colleagues at Vivo Communication Technology Company Ltd., who have made the environment an excellent place to work in with friendly touch. Also, learned so much during the preparing of my report.

Executive Summary

For an MBA student to successfully finish the postgraduate program, an internship is required at the conclusion of all courses. To meet that need, it is crucial to examine all theoretical and applied domains of knowledge.

First of all, this report gives a detailed introduction of Vivo Communication Technology Company Limited Supply Chain Management functions. As we know, management of the flow of goods & services and include all processes that transform raw materials into final products is called Supply Chain Management. So, this report contains how Vivo Communication Technology Company Limited transform raw materials into finish goods by following many supply chain management functions. In this internship report express all the information of my work experience with vivo. The objective of the research is to increase understanding of the company's SCM activities. By implementing smooth supply chain operation vivo Communication Technology Company Limited successfully capture the Bangladeshi market as an official Bangladeshi phone.

The research revealed that Vivo Communication Technology Company Limited is a partnership between a group of forward-thinking young businesspeople who strive to produce the greatest results at the lowest possible competitive industry pricing. With their extensive customer service, Vivo Communication Technology Company Limited aims to provide the highest quality mobile phones at the lowest possible price.

The data show that the vast majority of clients are satisfied with the current service quality of vivo mobile, particularly with their low-budget customers. Furthermore, vivo authentic phone ensures exceptional quality while keeping their costs to a minimum.

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Chapter 1
Introduction

1.1 Introduction

In the smartphone sector, developing and managing a company's supply chain is difficult. Lifecycles that are relatively brief, continuously changing technology, internationally networked distribution networks, increasing product diversity, and high levels of demand and supply volatility all provide issues for supply chain operations and management. As competition in this area heats up and profit margins shrink, efficient supply chain management strategies become even more important for enterprises operating in this space. To thrive, businesses must construct their supply chain in such a manner that it efficiently supports their company strategy. This report investigates the Vivo Communication Technology Company Limited's operations and supply chain analysis.

1.2 Background of the Study

Complete an internship relating to the main subject and write a report as a requirement for the Daffodil International University (DIU) MBA Program. I had to complete a four-month internship at Vivo Communication Technology Company Limited as an MBA student. I'm grateful for the opportunity to work full time at vivo Communication Technology Company Limited. I've been employed with Vivo since 2019 in the supply chain management division. My major duty was to support the logistics process for new product creation, inventory maintenance, shipment and delivery, and product returns. Identifying and executing buying strategies, creating cost estimates, and maintaining budgets, as well as finding cost-effective solutions for supply chain operations, supervise daily warehouse activities, including quality assurance, inventory control, space management, logistics, floor productivity, shipping, and customer service.

1.3 Objectives of the Study

   Objective of the study are as follows:

   Broad Objective:
   The broad objective of the study is to analyze supply chain management activities of Vivo Communication Technology Company Limited.

The specific objective of the study are as follows:

i)   To analyze supply chain activities of Vivo Communication Technology Company Limited.

ii)   To evaluate supply chain activities of Vivo Communication Technology Company Limited.

iii)   To find out some problems of those activities.

iv)   To make some suggestions to overcome the problems.

1.4 Scope of the Study

In this study, the supply chain management implications for the mobile sector are examined. The definition and use of supply chain management are changing. The report covers supply chain management's function in the mobile sector. One of the subjects that is now most talked about is supply chain management. The research aims to give a thorough knowledge of the advantages of the supply chain, accountability, and efforts taken by the firm to survive in a globally competitive business environment. The study was conducted to examine the various supply chain management functions of Bangladesh's other mobile industries and their contributions. This study discovered supply chain management in Bangladesh's mobile business, including vivo Communication Technology Company Limited. According to the survey, Bangladesh's mobile sector is attempting to increase its contribution in line with its performance.

1.5 Methodology

This report was created using a variety of knowledge and real work experience. This report's data sources are separated into two groups. One is primary sources, while the other is secondary sources. The basic data was obtained through casual discussions with vivo Communication Technology Company Limited workers. Secondary data was also employed to make the report more solid.

1.6 Limitations of the Study

A company's SCM operations are also regarded a corporate secret. As a result, some of the information the corporation prefers to keep private and not share with the public. As a consequence of limited resources, part of the data in this report may not fully depict vivo Communication Technology Company Limited's supply chain strategy.

Chapter 2
Organizational Overview

2.1 Company Profile of Vivo Communication Technology Co. Ltd.

Vivo Communication Technology Co. Ltd., styled vivo in its logo, is a Chinese technology company headquartered in Dongguan, Guangdong that designs and develops smartphones, smartphone accessories, software and online services. The company develops software for its phones, distributed through its V-Appstore, with iManager included in their proprietary, Android-based operating system, Funtouch OS in Global, Origin OS in Mainland China and India. Vivo is an independent company and develops its own products. It has 10,000 employees, with research and development centers in Shenzhen, Guangdong, and Nanjing, Jiangsu. In the first quarter of 2015, vivo was ranked among the top 10 smartphone makers, achieving a global market share of 2.7%. Since its founding in 2009, Vivo has expanded to over 100 countries around the world. On 17 December 2020, Vivo and Zeiss announced a long-term strategic partnership to jointly promote and develop breakthrough innovations in mobile imaging technology. The first "Vivo Zeiss co-engineered imaging system" will be featured in the Vivo X60 series.

From 2019, vivo mobile communication technology co. ltd. started their journey in Bangladesh name as (Best Tycoon BD Enterprise Ltd.). At first, vivo start their business by doing only assemble in Bangladesh. After that, vivo started SMT (Surface-mount Technology) plant in Bangladesh. And successfully making the PCBA in Bangladesh which is really cost saving project for vivo. As well as for the customer it's good news because they are getting the mobile with a low cost than before.

Founded: May 22, 2009

Sector: Technology

Industry: Tech Hardware & Semiconductors

Sub-Industry: Technology Hardware

Founder: Shen Wei (沈炜)

Headquarters: Dongguan, Guangdong, China

Area served: Worldwide (Detailed list (may not be up to date): Bangladesh, Cambodia, China, India, Indonesia, Nepal, Malaysia, Mexico, Myanmar, Pakistan, Philippines, Russia, Singapore, Sri Lanka, Taiwan, Thailand, Turkey, Ukraine, United Kingdom, United States, Vietnam, Ghana.

Key Management people: Shen Wei (Founder & CEO), Baishan Hu (Executive Vice President & COO), Spark Ni (Senior Vice President & CMO), Yujian Shi (Senior Vice President & CTO.

Products: Smartphones, HiFi, Accessories, Software and Online services.

Number of employees: 40,000+

2.2 Mission Statement of Vivo Communication Technology Co. Ltd.

- **For Users:** Create great products.
- **For Employees:** Create a joyful and progressive environment.
- **For Partners:** Create win-win platforms based on mutual trust.
- **For Shareholders:** Render steady long term returns on investment.

2.3 Vision Statement of Vivo Communication Technology Co. Ltd.

To become a healthier, longer-lasting world-class corporation.

2.4 Core Value of Vivo Communication Technology Co. Ltd.

- Benfen
- User Orientation
- Design-driven
- Continuous Learning
- Team-Spirit

Chapter 3
Theoretical Framework of SCM

3.1 The origin of SCM

The early 1980s was the first time the phrase supply chain management as we know it today was written in reputable media and literature. More specifically, Oliver and Webber's 1982 Financial Times article outlining the organization's breadth of processing and managing suppliers is where it originally appeared. However, purchasing operations were the primary emphasis of the early supply chain management literature in the 1980s. When the idea as we now understand it began to be progressively established in the 1990s, there was a considerable development and growth in publications in the fields of supply chain integration and supplier-buyer relationships.

3.2 Importance of SCM

Supply chain management improves efficiency, revenues, expenses, teamwork, and many other factors. SCM gives businesses the tools they need to more effectively manage demand, carry the proper amount of inventory, handle interruptions, save costs, and satisfy consumer demand. The right techniques and tools are used to manage the increasing complexity of today's supply chains, resulting in several SCM advantages.

3.3 Common Factors of SCM

When selecting how to build up a supply chain, there are several things to consider. Mattson (2002) points out:

- Number of main suppliers and sub suppliers. Module providers or several sub producers
- Supplier's location
- Supplier size
- Working together with the provider
- Direct deliveries

- Local, regional, or centralized storage
- distributors who offer 3PL (third-party logistics) services to other businesses

3.4 SCM (Supply Chain Management) Processes

Supply chain activities aren't the responsibility of one person or one company. Multiple people need to be actively involved in a number of different processes to make it work.

- Planning – the plan process seeks to create effective long- and short-range supply chain strategies. From the design of the supply chain network to the prediction of customer demand, supply chain leaders need to develop integrated supply chain strategies.

- Procurement – the buy process focuses on the purchase of required raw materials, components, and goods.

- Production – the make process involves the manufacture, conversion, or assembly of materials into finished goods or parts for other products. Supply chain managers provide production support and ensure that key materials are available when needed.

- Distribution – the move process manages the logistical flow of goods across the supply chain. Transportation companies, third party logistics firms, and others ensure that goods are flowing quickly and safely toward the point of demand.

- Customer Interface – the demand process revolves around all the issues that are related to planning customer interactions, satisfying their needs, and fulfilling orders perfectly.

3.5 Seven Principles of SCM

- Principle 1: Segment customers based on the service needs of distinct groups and adapt the supply chain to serve these segments profitably.

- Principle 2: Customize the logistics network to the service requirements and profitability of customer segments.

- Principle 3: Listen to market signals and align demand planning accordingly across the supply chain, ensuring consistent forecasts and optimal resource allocation.

- Principle 4: Differentiate product closer to the customer and speed conversation across the supply chain.

- Principle 5: Manage sources of supply strategically to reduce the total cost of owning materials and services.

- Principle 6: Develop a supply chain-wide technology strategy that supports multiple levels of decision making and gives clear view of the flow of products, services, and information.

- Principle 7: Adopt channel-spanning performance measures to gauge collective success in reaching the end-user effectively and efficiently

3.6 Common Challenges of SCM

The Supply Chain Council is assisting companies to take a close look at their supply chains in rooting out some major inefficiency. Their mission is advancement of supply chain knowledge and how to apply it in solving problems. Some of the followings are challenges

faced in a supply chain and how the supply chain council proposes to assist in solving them:

☐ Customer service is very important in the supply chain in delivering the right product, in the right condition, right quantity, right price, right location, right time, and right documentation. It does sound simple and straightforward but indeed, it is not. The council offers a supply chain operations reference model, which create a foundation for improvement. It will assist in evaluating cost performance; develop strategies for meeting customer expectations and respond to global as well domestic.

☐ Cost control which are constantly under pressure in any supply chain and the council offers their SCOR mark-benchmarking portal in order to provide organizations with metrics as the basis in measuring.

☐ Supplier and Partner relationship management is the other challenge addressed by the council with their SCOR program. Organizations as well as department inside an organization have their own methods in communicating and measuring performance results and expectations. They offer a common language across all boards from the classification and analysis of a supply chain. The use of a common language and framework make communications easier between teams enhances evaluation of best practices and speed up benchmarking efforts.

3.7 Supply Chain Management Software

Supply chain managers used to struggle to make their supply chains operate efficiently and effectively years ago, before the Internet replaced all fundamental technologies and tasks like physically maintaining inventories. In vivo communication technology we use different software for maintaining the data, track the data and efferently handle all the operation. For maintaining all the warehouse operation vivo uses Warehouse Management System (WMS) & ERP software. Also, for controlling the scanning, PCBA, mobile phone tracking and controlling purposes uses MES & MES panda software. For logistics operation and shipment tracking purpose PMC, warehouse team of supply chain management uses the Transportation Management System (TMS). Also, for material identification verify, generate, bind unbind

all operation related export and import warehouse uses the VLM system. By using those technology vivo playing a great role in this advance world. The software is only as good as the person contributing the data to it; thus, supply chain managers must enter data into it properly if they want their supply chains to function and balance. A producer may handle all calculations without using a manual way by installing supply chain management software. With proper supply chain management, there won't be any more surplus products stored or paid to be created when there is no market for them.

Chapter 5

Supply Chain Management Practices In vivo Communication Technology Company Limited

Figure 1: The process of SCM

5.1 Supply Chain of vivo Communication Technology Co. Ltd.

Because the primary goal of the supply chain department is to achieve organizational goals by lowering costs and upholding the 5 R (To ensure to procure the right product at the right price in the right time with the right quality and deliver to the right place), the vivo supply chain is complex. The supply chain management department is responsible for planning, sourcing, procurement, store & inventory management. Also, SCM ensure delivery and sales of a finish goods. SCM arrange the planning of production and collaborating with production, quality, engineering, finance, logistics, admin and other team successfully complete the target and ensure market demand. As a official phone, vivo ensuring best quality phone in Bangladesh within a short budget.

5.2 Process flow of the supply chain activities of vivo Communication Technology Co. Ltd.
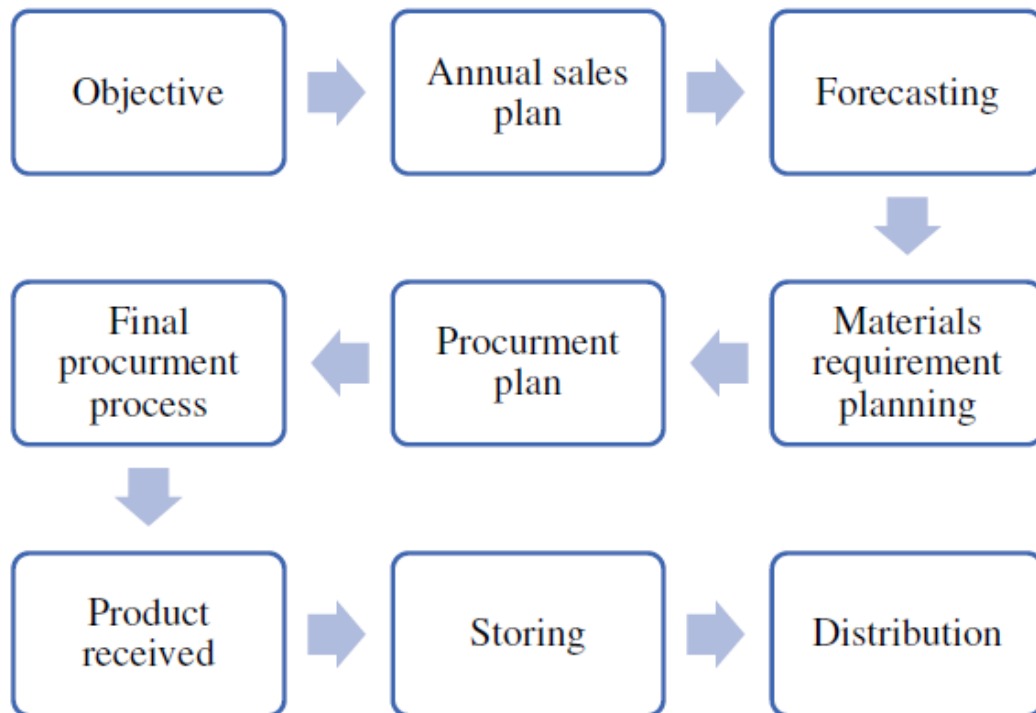
Figure 5: Process flow of SCM activities

Figure: Process of SCM

Objective of vivo: The supply chain process of vivo starts when the goal is set by the top Management of vivo. The main organizational goal is fix after discussing with all concern department decision maker. As per market sale demand, from planner to distributor all arrange their planning and execute accordingly.

Annual Sales Plan: According to the organization goal and after market research planner analysis the demand and make a demand target for all the factory of overseas. The demand has many differences based on different country demand and purchasing capacity.

Forecasting: Every month, the sales and marketing departments create rolling forecasts based on consumer demand and sales trends. They provide the supply chain department an updated version of this rolling forecast. Planning for material requirements is prepared by the supply chain department.

Material Requirement Planning: As per monthly consumption based on sales demand from China PMC side arrange the material requirement planning and from all local PMC execute those plans by receiving those material in all factory.

Procurement Plan: The Supply Chain section creates the purchase strategy based on the Material Requirement Planning. As per planning from China factory arrange the material to all overseas factory periodically for fulfill the demand of local market.

Procurement process: The supply chain begins the procurement process, makes an order for the materials, and guarantees a continuous supply of all supplies while considering the inventory state and sales projection.

Receiving & Storing: As per the receiving process and guideline of material receiving concern WH person ensure the receiving of shipment material and store all the material by maintaining the store.

Distributions: Base on the market demand and as per PMC demand warehouse deliver the material to production for ensuring the final production and meet the market demand on time.

5.3 VIVO competitive strategy

Vivo has thus far placed a high value on innovation. According to this viewpoint, innovation is not only necessary for an enterprise's survival and growth, but it also gives its goods a distinct competitive edge over those of other mobile phone makers. As a result, it is clear that vivo has become more prevalent recently. Mobile phone goods on the market are continually changing and experimenting with everything from look to image, battery life to screen in order to demonstrate their distinct and differentiating benefits. Vivo uses the three logistical and three cross functional drivers effectively to achieve this type of supply chain efficiency and effectiveness.

COMPETETIORS:

 The major competitors of vivo smart phone are SAMSUNG, OPPO, Techno, Realme and Xiaomi.

SWOT ANALYSIS

STRENGTH

- Innovative feature
- Fun touch operating system
- Better sale service
- Better promotion and sales team

WEAKNESS

- Limited product line
- Less credibility
- High range price
- New to the industry

OPPORTUNITY

- More no potential customer
- Huge market

THREATS

- Strong competition
- Perception of the customer
- Another smart phone companies

5.4 The method of each unit is connected and works as an overall Supply Chain

A basic supply chain is composed of a number of components that transfer things along it. Each department within our company, VIVO, is interconnected, including planning, finance, procurement, warehousing, manufacturing, and logistics.

Planning: The sales order from the customer will be merged with other orders to fulfill the need. As per the customer demand and market situation PMC team set their monthly sales target and production plan. As per the plan all the procurement of the material arranges accordingly.

Finance: The commercial division works with the supply chain's demands in mind. This department collaborates with the supply chain to achieve the purpose of the supply chain. It belongs to the supply chain division. This department is in charge of the activities involved in the supply chain.

Procurement: Procurement team basically responsible for all the purchase of local item and factory any kind of maintenance required by the concern any department. Also, procurement team ensure the sourcing of any material and play a great role in factory development sector. This team also part of the supply chain management department.

Warehousing: In vivo factory warehouse contribute a lot for completing the SCM operation. Warehouse work with the whole team of supply chain management and as a service department they cooperate every team and ensure their duty by receiving, storing and delivery the material. The materials are brought in from the vendors, quality- and accuracy-checked, and then placed in the warehouse. After then, the supplier will invoice the business for the goods they supplied. the supplies kept until the wholesalers and sales department need them.

Logistics: When the materials are prepared at the warehouse, the shipping division chooses the most effective way to send the goods so that they arrive on or before the date the client has selected. The business will provide a delivery invoice after the consumer has received the merchandise. Logistics give their best effort for clearing shipment from port and complete all procedure as per PMC demand for continuing

5.5 PMC/Planning Team Responsibilities

- Responsible for work order management, ECO management, tracking of materials shortage, follow up with logistics to arrange delivery schedule, to manage the new model trial and model final clearance, to ensure no line stoppage both in SMT and in assembly. Also, responsible for the material's turnover days.

- Responsible for resolving materials related issues, arrange meeting with all concern department. Manage SMT and assembly dept. requirement plan for aftersales requirement. To manage PDA/PDB/WTRC repair requirement from WH.

- Responsible for work order status and control all SMT WIP.

- Responsible for WOs document, Sample/ Priority usage document and Daily progress Report

5.6 Purchase Team Responsibilities

➤ Responsible for the procurement and supply of the company's product raw materials and production auxiliary materials. Through the reasonable planning of supplier resources, the decomposition of product demand, the reasonable allocation of projects, the real-time understanding of the industry supply and meet company's material needs at the right time, quality, and quantity.

➤ Through the formulation and implementation of reasonable procurement strategies, the cost splitting of special materials, the reasonable competition of procurement resources, and the comprehensive comparison of industry costs, we promote the rationalization of the company's demand selection and design, and purchase materials at competitive prices.

➤ Forecast the risks in the supply chain & take proactive actions in order to mitigate & eliminate them.

➤ Through interactive communication with suppliers, daily summaries, supplier evaluation, assessment, etc., so that the overall capabilities of suppliers can be improved. Trust buildup in Organization culture and policy.

➤ Find new out new products as per new technologies in the market for improving Company work performance and cost-effectiveness.

➤ Responsible for the overall development of the company's procurement team capabilities and the accumulation and precipitation of procurement knowledge. Through timely summary and output of daily work, continuous improvement of working methods and means, internal and external training, etc.

5.7 Warehouse Team Responsibilities

➤ According Bangladesh factory management principle and target, organize and implement material receive, storage and dispatch, provide safety, efficient, accurate, logistics and storage service.

➤ According account team management principle, post timely and accurately, ensure on-hand quantity match with physical quantity.

➤ Provide proper storage environment, improve 6s management, ensure material and employee safety.

➤ Continue improve warehouse and logistics system, improve management level, skill enhancement training to manpower, ensure all WI, Document, Process are executed in strict way.

➤ Supervision management of low value material, assets disposal, fix assets in

Bangladesh factory.

➤ Perform FG IMEI scanning and checking, manage and maintain company logistics information and ensure the result for FG dispatch.

5.8 Mission and vision of SCM

➤ Mission & Vision of PMC Team:
Based on strategic objectives of company, plan and manage BDF resources to fulfill the market demand; Manage the structure of inventory, improve the inventory turnover and
decrease the overstock to ensure operating safety.

➤ Mission & Vision of Warehouse Team:
To fully utilize warehouse resources, provide safe, efficient and accurate logistics and storage services, ensure company's assets safety.

➤ Mission & Vision of Purchase Team
According to the company's development needs, formulate corresponding procurement strategies and goals. Improve the procurement process, rationally plan resources, and effectively control costs, understand industry trends, and meet the company's needs for the materials.

5.8 PMC/Planning Team Policy

1.1. Monthly Plan arrangement

1.1.1 Consists Month Plan, Daily Assembly requirement, Actual Issuance, SMT line arrangement, Daily SMT & assembly Plan and actual shipment.

1.1.2 Arrangement of New model Trial with respect to Assembly trial plan and material availability.

1.1.3 Mounting plan depends on Working days, Capacity, Requirement & Material forecast.

1.1.4 Clearance plan with target date including WIP and repair pending.

1.1.5 To create PCBA Buffer, plan according to line capacity, material availability and Next month plan.

1.2 Weekly Plan arrangement

1.2.1 SMT Weekly plan consists daily Mounting plan, Shipment plan, Fresh stock, pending of month plan, SMT PCBA WIP, actual Assembly issuance and SMT dispatch.

1.2.2 Assembly plan if changes according to market demand SMT need to fulfill requirement according to PMC, change must be noticed to SMT.

1.2.3 Every model change on line must be predefined but ensure no frequent changeover on SMT line to ensure high efficiency.

1.2.4 According to PCBA stock available also need to notice Assembly planning team to consume efficiently.

1.2.5 PMC will send dispatch plan to SMT to communicate required shipment from SMT.

1.2.6 After week complete production need to update actual shipment Qty against plan and reason for gap. PMC will be final reviewer against shipment demand.

1.3 Work Order Management

1.3.1 For any model PMC will release standard WO according to running lines and mounting capacity for min three days.

1.3.2 WO must release on alternate days i.e. Monday, Wednesday and Friday.

1.3.3 WO instruction must mention ECO change which used in released WO and document should be published through Work Order Management.

1.3.4 Every Model should have different WO instruction also change for M Board and N Board.

1.3.5 Each WO must maintain ECO and have sufficient material for smooth production.

1.3.6 Each WO must have same line No., SMT can use any WO on any line. Class for standard WO must be 'JS' and Demand Class 'D99'.

Note: SMT standard WO have Location, Released Date, model name, sequence no. of WO released in one day.

M Board WO name follow SMTYYYYMMDD-PD(Model Code) -Seq.No. format.

Normal production SMT WOs must closed in 14 working days and for model clearance in 45 working days starting with released date.

Note: For clearance model 45 days itself include supplement duration, WO adjustment, loss & gain application.

1.4 Material Management

1.4.1 In SMT released WO itself pull material so PMC have to maintain released WO total Quantity.

1.4.2 Every day PCBA mounting need to check and WIP notice to clear according to SMT arrangement and assembly priority.

1.4.3 Monitor WIP and Repair pending N Boards recall M/N Boards and push to clear, notice for priority.

1.4.4 Monitor fresh PCBA stock in warehouse to conclude assembly requirement, SMT line arrangement, material requirement and availability.

1.4.5 PMC every day check weekly shortage and for any abnormality communicate to resolve.

1.4.6 PMC will support in WO management and coordinate to fulfill SMT device requirement for testing purpose.

1.4.7 PMC will support in loss/gain & account adjustment on time. SMT will apply weekly foam paste & Chemical material loss/gain.

Note: Every Sunday physical check in SMT Workshop & SMT will apply loss/gain on or before Wednesday by Special audit request.

1.4.8 PMC will manage SMT lines if buffer for M boards increased by more than one-week assembly requirement. For any Quality risk inform to QC/Engineer to analysis.

Note: Warehouse stock should be checked in both total stock and model wise stock for risk assessment.

1.5 Repair Management

1.5.1 In SMT now only production return N boards will repair, warehouse location 920 is SMT's responsibility to clear.

1.5.2 Manage Repair material and issued/return boards to repair requirement through WO.

1.5.3 To recall, for Testing & for Dept use req. (devices/CCM/Testing Boards) PMC will manage WO demand and coordinate to fulfill requirement.

1.5.4 PMC have to manage 'net MRP' in different WO according to requirement, it shouldn't generate false requirement, this can cause Dead material.

1.5.5 SMT repair must return NG IC and high value component against fresh issue (088****/4946****/4947****). Also keep WIP management, before clearance must return excess material.

1.6 New Model Trial and Mass production

1.6.1 PMC notice for new model trial in SMT and update in plan one week advance also WO need provide 5 days before trial.

1.6.2 For any trial model PCBA must have trial run of 50 pcs.

1.6.3 SMT Mass production must start before assembly mass production to match assembly requirement.

1.6.4 Assembly will share testing result of trial PCBA, on behalf of that mass production can start, for any abnormal condition again SMT will give PCBA for testing.

1.6.5 Before trial PMC must ensure material availability, WO release and Assembly line for PCBA trial.

Note: For new line also, assembly trial is mandatory as per PE instruction.

1.7 SMT Clearance

1.7.1 PMC notice min 15 days before pending mounting against plan and target date should include 7 days after mounting and update same in plan.

Notice must include on day Fresh stock, WIP, pending mounting, Pending for Repair and Assembly clearance date.

1.7.2 PMC must track Pending Mounting, WIP and push SMT to clear.

1.7.3 SMT team must check WIP loss and apply supplement with effective time management to get material before mounting stop. Supplement must include repair and production requirement.

1.7.4 Clearance must ensure Assembly requirement finished and no dead material for High value (Flash IC & CPU IC).

1.7.5 If some PCBA pending for repair which need time to clear, first inform to assembly planning team to adjust clearance duration or requirement. And SMT standard WO close by transfer repair pending into repair WO.

1.7.6 PMC instruct SMT to issue for repair stock even after assembly clearance.

Note: SMT must clear repair stock clearance notice doesn't mean to stop ship in after assembly clearance.

1.8 SMT Physical Inventory

1.8.1 According to requirement PMC can arrange physical check.

1.8.2 PMC have to send notice to SMT for physical check earliest possible (min one week). And arrange meeting including Audit dept. To discuss steps and arrangements. This meeting will confirm dates, components and another additional requirement.

1.8.3 Before Inventory all lines mounting will stop and material will return to warehouse, all PCBA WIP must clear, all NG component must return to warehouse and all complete WOs must be closed.

1.8.4 After physical check, SMT will submit actual stock at different location both in hard and soft copy to Audit. PMC and Audit dept. will audit SMT against received data.

1.8.5 After verification Audit will publish Gain and loss. And SMT will apply this loss and gain through special Audit request. After Audit approval warehouse will adjust component loss and gain.
PMC will provide only adjust WO for PCBA loss/gain.

1.8.6 SMT can start mounting after Inventory physical verification complete form Audit and PMC.

Note: SMT physical Inventory and verification must finish before Assembly to get additional time to resume mounting lines.

1.9 Regulation and Documents

1.9.1 PMC have to work on process assessment and continuous Improvement, if required need to arrange training and update/ publish Regulation/ manual.

1.9.2 PMC have to publish documents to notice concern to direct Trial PCBA Use and Priority PCBA Use, which is essential to avoid abnormality.

1.9.3 PMC will follow and direct other department to follow company policy, regulation and guidelines regarding material management and improvement.

1.9.4 Every month PMC will publish Month summary containing Plan vs Actual for Mounting and Shipment, Whole month Issues its reason and solution, Improvement and target.

5.8 Procurement Team Policy

1. Purpose

In order to regulate the non-raw material purchase: Fixed Assets, Low-value material, Sample purchase, Urgent Purchase, Service and asset Maintenance, and Nitrogen (N2) Purchase.

2. Scope

2.1. This regulation will be applicable to all departments of the vivo Communication Technology Co. Ltd

3. General Responsibility

3.1 Applicant department

3.1.1 Apply BPM request (as per the type of purchase described below) and get manager/HOD approval quantity applied and reason for purchase.

3.1.2 Confirm or try the sample of new material (if needed).

3.1.3 Manage the inventory of material and confirm the quality. Work for material safety also.

3.1.4 If any change in material requirement needs to send office requests by HOD approval to the Purchasing team then only can change.

3.1.5 If wrong material is applied then only the applicant and HOD are responsible for the same.

3.1.6 Responsible for applying reasonable quantity and material.

3.2 Purchasing team

3.2.1 Find the qualified vendor, ensure the reasonable price, track PO, and do contract with vendor/supplier as per Contract management regulation.

3.2.2 Responsible for material reaching the warehouse on the tentative date and responsible for purchasing applied material only. Resolve if any issue is found related to the material.

3.2.3 Focus on material quality if any quality issue is found resolve it by coordinating with the vendor.

3.2.4 Responsible for follow-up of the contract, order execution, and delivery.
You sent
3.3 Engineering/technical department:

3.3.1 The engineering department will review the material requirement before purchase except for urgent material and sample purchase.

3.3.2 At the time of material receiving, a related specialist/technical department will help to verify the product. Like: The IT department will help to verify the IT materials.

3.4 Warehouse department

3.4.1 Receive material, after gate entry according to the delivery notice/ERP by checking with the technical/user department if required, inbound in ERP, and manage material in-store.

3.4.2 Issued material to the applicant dept. and must take sign on ERP issued slip. Only hand over material to the asset administrator or nominated person of the department.

3.4.3 It is not allowable to stock low-value material in warehouse stock for more than 02 working days. When the warehouse receives material from the vendor, they notify to asset manager/administrator of the applicant dept. to pick according to the BPM, the processing warehouse makes the picking list to release material to the asset manager/administrator.

3.4.4 Above responsibilities will not follow for sample purchase material.

3.5 F&I Audit Department:

3.5.1 Check the necessity of purchase requisitions and control the cost.

3.5.2 Confirm price before procurement, Process payment by verifying the documents, and supervise the implementation of this regulation as well as update it if required.

3.6 Finance department:

3.6.1 Support and verify the VAT/tax issues,

3.6.2 Disburse payment to the vendor bank account by checking payment documents.

3.6.3 Update payment transactions in ERP.

4. Purchase process Content

There is 06 purchase process:

4.1 Fixed asset purchase

4.2 Low-value material purchase

4.3 Sample purchase

4.4 Urgent purchase

4.5 Service and Asset Maintenance

4.6 Nitrogen (N2) Purchase Process
You sent
1. Material type

Only for the fixed assets materials, which have item code B7****.

2. Special responsibility for the fixed asset purchase process:

2.1 User Dept: Responsible for writing purchase goods requests by the BPM module.

2.2 Purchasing Team: The Purchasing team will confirm the price & vendor, confirm the delivery with the PO, and arrange delivery with the cooperation of the user/Warehouse, and for payment contract/PO payment.

2.3 Warehouse Department: At the time of fixed asset material issue to the user, WH will also issue a fixed asset label.

3. Content/Process

3.1 Material should be a fixed asset with material code B7**** must be required. Purchase goods application approved by the respective dept. HOD.

3.2 Material requirements should be logical, clear, and specific if there is any query from the purchasing team, technical person, Factory head, or F&I Audit then it should be clear by the corresponding person or department.

3.3 For the new material code opening, follow the material code application regulation

3.4 The warehouse will receive the material as per the delivery notice and ERP PO. Different material delivery/received from the approval in BPM request and ERP is strictly prohibited. If there is any special issue then must have BPM office request approval for this.

3.5 Material description must be proper mentioning brand, size, etc., and the picture of the material. If there is any material description, that is not clear, then the purchasing team will arrange the material code description amendment.

3.6 The purchasing team should take price approval in the material quotation module before

the purchase of the material. The attached approval purchase goods and process the PO for the purchase.

3.7 In the price part keep related persons only in the reader log as this is the confidential part.

3.8 After approval of PO delivery lead time following regulation mention time. If there is any delivery issue purchasing team/contractor will confirm with the respective departments.

3.9 Fixed asset purchase process:

4. BPM process for Fixed asset purchase, material quotation:

4.1 Fixed asset purchase application by the required department. BPM Route: Home > Finance Audit > Cost Management > Purchase Goods.
You sent

1. Material type

Only for the low-value material items with item code B8****.

2. Special responsibility for the low-value materials purchase process:

2.1 Applicant department

2.1.1 Dept asset administrator will apply for monthly purchase goods by office request and get manager/HOD approval quantity applied.

2.1.2 Confirm or try the sample of new material (if needed).

3. Engineering department

3.1 Responsible for setting department-wise monthly low-value standards.

3.2 Confirm the necessity of the goods required and control the cost.

3.2 Purchase Team:

3.2.1 The purchasing team will combine all the approved office request items and quantities and apply for purchase goods.

3.2.2 Confirm the material price & vendor and PO

3.2.3 Arrange delivery with the cooperation of the user/Warehouse
3.2.3 Process documents for payment.

3.4 F&I Audit Department:

3.4.1 F&I Audit will review the purchasing price, process, reasonableness of the item, and quantity.

3.4.2 Process payment in BPM by following PO payment regulation.
You sent
5. Content

5.1.1 As per rules, low-value material planned purchase, monthly purchase once a month. Each department needs to plan in advance to avoid urgent purchases.

5.1.2 When submitting the purchase application, it must first have the material code, the material code application rules see "Non-Raw Material Code Application Regulation

5.1.3 Each department shall designate personnel as an asset manager and asset administrator, responsible for the application, receipt, and management, and provide the list to the warehouse records. Only the person in the inventory of warehouse records can receive assets from the warehouse.

5.1.4 Office request approval path:

Writer: Dept. Asset administrator --> Review: HOD --> Sign off: Engineering HOD -->Replay: F&I Audit Manager --> Replay Review: Purchase Manager.

5.2 Monthly purchase plan:

   a. Before the 5th of every month, each department summarizes the purchase requirements of its own department. And submit the monthly planning applications.

   b. BPM path: Admin/Admin/Office Request, needs to be approved by the department head, to the technical department for review.

5.2.1 Technical department review: Engineering department (IE), finish confirmation from the 8th of every month.

5.2.3 Summarize monthly purchasing plan: Purchasing personnel, finish the summary from the 10th of every month.

5.2.4 Review/Confirm monthly purchase plan: Each business department and the review department confirm, every month before the 10th.

5.2.5 Purchase team Submit monthly purchase request as per regulation process time

5.2.6 After approval of PO delivery lead time in regulation mention days to in-house. If there is any delivery issue purchasing team will confirm with the respective departments.
You sent
6. BPM process for low-value materials purchase:

6.1 Low-value material purchase application in BPM by purchasing team. BPM Route as follows:

1. Material type

Only for the new material items, not for fixed assets.

2. Special responsibilities for the sample purchase process:

2.1 User Dept: Responsible for writing Sample purchase requests by BPM sample purchase module. Receive material from the vendor after the gate entry.

2.2 Purchasing team department: The purchasing team will confirm the price & vendor, with manual PO and arrange delivery by cooperation with the user, and apply for payment in BPM in new payment.

3. Content/Process:

3.1 Material should not be a fixed asset & no material code is required. The request is written by dept. coordinator and approved by dept. HOD.

3.2 Material requirements should be irregular in nature. It should be a small quantity purchase before bulk purchase or purchase for only 1 or 2 times in one year.

3.3 The sample purchase, one document can carry more than a single item. If a single item's price is less than BDT 1000, the total amount is not more than BDT 10000; if a single item is more than BDT 1000, the total amount is not more than BDT 25000. There is no limit to the total quantity in one document.

3.4 Before writing a sample purchase request in BPM, the concerned dept. will check the sample of the material picture/design sample soft copy/physical (Depending on the situation and discussion with the purchasing team) provided by the Purchasing team.

3.5 After dept. receive material should submit the bpm request and sign on the delivery challan.

3.6 Purchasing team dept. will pay attention to materials that have code not purchased by sample purchase. Before submitting payment to the F&I Audit dept. must check to have a sign-on delivery challan of concern dept.

3.7 Material description must be properly mentioned the brand, size, etc., and the picture of the material at the time of application by the user/writer.

3.8 After approval of PO delivery lead time is 01-03 weeks to in-house. If there is any delivery issue purchasing team will confirm with the respective departments.

3.9 It is not allowed to purchase any kind of laptop/tab/mobile/computer or long-time legibility lifetime item by sample purchase process. (If the material is required for 01 time only it will be allowed)

3.10 Repeated purchase with a similar type of product purchase with small changes through sample purchase is not allowed.

4. Sample purchase application and payment process in BPM:

4.1 Sample purchase BPM Route: Home > Finance Audit > Financial Support> Sample Purchase application.

1. Material type

For the non-physical procurement: fixed asset (B7) maintenance, project purchase, software purchase, low-value maintenance/service procurement.

2. Special responsibility for the fixed asset purchase process:

2.1 User Dept: Responsible for writing expense requirement/ expense assessment/ asset maintenance requests as per requirement stated below through the BPM module. As well as will be responsible for the service receiving after the service receiving.

2.2 Contract department: As per the procurement responsibility, the contractor department will confirm the price & vendor, confirm the delivery with concern, and arrange the contract/ payment.

2.3 Warehouse Department: At the time of fixed asset material issue to the user, WH will also issue a fixed asset label.

3. Content/Process

3.1 For the non-physical procurement.

3.2 Service requirements should be logical, clear, and specific if there is any query from the contractor department, Factory head, or F&I Audit then it should be clear by the corresponding person or department first.

3.3 After receiving the service, the receiving department should write expense acceptance as following the regulation

3.4 In the price part keep related persons only in the reading log as this is the confidential part.

3.5 For the fixed asset maintenance, the assets that have our company asset code need to be written requests in the asset maintenance module. For the other asset or project purchase,

software purchase, or low-value maintenance/service purchase need to write the expense requirement request. BPM path for the cost approval of service:
You sent

3.8 BPM Approval path:

(1) Writer: Department asset administrator --> (2) Dept approval: HOD --> (3) Technical Approval: Related Technical department HOD --> (4) Quotation: Purchase Manager --> (5) Quotation approval: Purchase HOD --> (6) F&I Audit approval --> (7) Department Approval: Factory Head --> (Progress receipt --> Purchase Concern --> (9) Applicant (will confirm the service receiving and quality) --> (10) Technical team will review and confirm --> (11) Payment Follow-up: Purchase team --> (12) Payment confirmation: Finance & Logistics Team

4. Asset Maintenance Process

4.1 For asset maintenance, the assets that have asset codes should go through the asset maintenance module and those that do not have asset codes should go by the expense requirement module.

4.2 For asset maintenance, the user will clearly mention the asset number, material code, the problem faced, and previous maintenance records in the application.

4.3 The department asset coordinator will remain responsible for the asset maintenance request with the help of a technical person/team.

4.4 The purchase team will be responsible for the repair vendor arrangement and the required contract/payment solution.

4.5 The F&I Audit department will remain responsible for the process follow-up, cost/payment review, and system document explanation/updating as per requirement.
1. Material type

Only for the liquid nitrogen (n2) materials, which ha.

2. Responsibility

2.1 SMT Department:

2.1.1 The SMT department will raise the demand by office request 03 working days in advance to the purchasing team. As per business requirements if there are any changes in quantity or delivery date after raising the request that can be discussed mutually with the purchasing team and confirmed.

2.1.2 SMT will remain responsible for nitrogen demand, weight confirmation, and acceptance.

2.2 SCM Department:

2.2.1 The SCM (Purchase) Team will be responsible for negotiation with the vendor, performing the contract, delivery arrangement, and payment process.

2.2.2 The purchasing team will provide advance delivery notice to the weighting concern departments (SMT/Admin) for their arrangement.

2.2.3 Admin (Security Team) will be responsible for the factory inside nitrogen meter measurement checking and signature on the delivery challan. One Security person (Place of Admin person) may go for N2 weight measurement checking.

2.3 F&I Audit Department:

2.3.1 Review the payment application and related receiving/acceptance.

2.3.2 Supervise and update this regulation.

2.4 Admin Department:

2.4.1 The Admin team also be responsible for nitrogen weighting from outside of the factory.

2.5 The Admin team is responsible for arranging a Cab for scale weight (if available).

3. Process and rules:

3.1 Nitrogen purchase requirement, weighting, and payment process
You sent
3.2 SMT will demand the nitrogen requisition by office request to the Purchasing team end in 03 days advance. The file attached requisition format should follow for the requisition.

BPM Path: Home > Admin > office request

Office request Approval path: Writer: (SMT responsible person) > Review: SMT Logistic supervisor/Chinese person > Sign off: BD Purchase Person > Replay: SMT responsible person > Replay review: Purchase HOD

3.3 The purchasing team will inform the delivery schedule to the concerned departments (SMT/Admin) in advance.

3.4 Admin and SMT concerned persons will go outside of the factory for weight confirmation and sign on the delivery challan accordingly.

3.5 The purchase team will apply for the payment by following the related contract terms/conditions and company expense management process.

3.6 The F&I Audit Department will verify the payment documents and verify the transactions.

3.7 The finance team will also review the payment voucher, and tax invoice and disburse the amount to the supplier bank account.

4. Additional Remarks

4.1 This system document is prepared and interpreted by the F&I Audit department and will take effect from the date of release. Violation of this system will be punished according to the situation 10-100 GWP or as per company management decision action will be taken against the responsible.

4.2 Department responsible persons can be changed by the related departments' meeting.

4.3 As per business requirement, if any changes are required in the N2 quantity/delivery time or any other issue, the SMT person can communicate with the purchasing responsible person via the Vchat group. Delivery time/quantity changes should be done in a logical manner.

4.4 After issuing a demand office request by SMT, if there are any changes in quantity/time via the Vchat group, then the purchasing team should add the Vchat conversion screenshot to the office request.
5.1 Material Quotation Process:

5.1.1 Purchase dept. need to make material quotation application for new material or change in the price of the material.

5.1.2 After the material quotation application gets approved, use the new price to make the PO.

5.1.3 BPM Route: Home>Finance &Audit >cost Management>Material Quotation.

5.1.4 If the price variation is their purchase team/contractor needs to mention the proper reason in the remark.

5.1.5 Material quotation application handled by the purchasing team. BPM Route: Home > Finance Audit > Financial Support> Reimbursement & New Payment> New Payment.
You sent
5.2 Purchase application process and BPM module:

5.2.1 If there is any IT-related product (Except mentioned in 5.2.2) required from any department, then keep the IT team in the process log. IT team will review the requirements first.

5.2.2 If any dept requires an IT product like a PC/laptop/Pen drive/hard disk/SSD/RAM will

raise an office request to the IT team by mentioning their purpose of work. IT will process the purchase goods application.

5.2.3 For the physical material (Daily use/high value), need to follow office request/purchase goods or expense assessment as per the requirement.

5.2.4 For the service item purchase follow expense requirement if the value is less than 01 lac RMB/equal BDT and expense assessment if the value is more than 01 lac RMB/equal BDT.

5.2.5 For asset maintenance, which has our asset number (belongs to the company) follow the asset maintenance module, and which asset does not have our asset number (does not belong to the company/rent), small project purchase, team building gift, software purchase, and low-value maintenance/service purchase will follow the expense requirement module.
You sent
5.2.6 If a new material/service individual requirement has a purchase value of more than 1 lac RMB/equal BDT, the applicant department must do the " Expense assessment first.

5.2.7 After the Expense assessment get approval, then make an application for purchase. One expense assessment will be valid for 01 time or the mentioned period. After the expiry of this, if the same service is required again then it is required to take the expense assessment again.

5.2.8 Team building gift purchase requests will also be processed by the expense requirement module.

6. Other

6.1 If the Applicant dept. has any quality issue with the material, then put an office request to the Purchasing team to deal with and resolve the issue in 1 weeks' time.

6.2 F&I Audit dept. review the purchase process, and if found issue send office to request to responsible dept. for clarification and solution.

6.3 For the expense requirement process clarification ppt has been attached to the file.

6.4 For the purchasing request following standard format should be followed except low-value items. For low-value item purchases, engineering-published standards should follow.

6.5 The F&I Audit Department will supervise the implementation of this regulation, and for any violation of the regulations, the responsible person and HOD will be penalized 10 to 100 GWP or based on the severity of the violation.

5.10 Inventory control management, standardize the factory operation, material management process & effective ROI

Responsible:

1.1. PMC

- ➢ Responsible for all relative ERP location material checking, follow up and support for resolution and execution, provide solution for special case.

- ➢ Consumption, scrap and export execution.

- ➢ WIP inventory arrangement and adjust process.

- ➢ Control on whole process for final result and process improvement.

1.2. Warehouse：

- ➢ Responsible for inventory arrangement in warehouse and update abnormal inventory or material.

- ➢ Provide specific expiry or receiving details for special material like bare board, battery, TPU, Frame and Chemicals.

- ➢ To follow FIFO and special treatment for priority consumption ERP location.

1.3. Financial Management：

- ➢ Responsible for review special Inventory related issues.

- ➢ WIP/WH ERP Adjust, supplier deduction and scrap approval processing.

- ➢ Report monthly Inventory status with Quantity and value for whole factory with previous month comparison data.

- ➢ Support in process improvement and upgrade.

5.11 Challenges Facing the Procurement Department

The Supply Chain of VIVO has several difficulties when conducting procurement activities. Here are a few of the difficulties STL is now facing:

➢ Challenge in sourcing and choosing suppliers

➢ Issues with quality and safety

➢ Less inventory, shorter lead times, and better overall

➢ Having access to the newest technologies

➢ Choosing a new supplier or changing suppliers

➢ Challenges with transparency and communication

➢ Lack of funds and resources

➢ Protracted procedure and formalities

➢ Natural, global, and environmental challenges

5.12 Supply Chain Cost of VIVO

➢ Order handling
➢ Purchasing
➢ Stock handling
➢ Manufacturing
➢ Production cost
➢ Transportation cost
➢ Warehousing cost
➢ Inventory carrying cost
➢ Internal material handling cost

Chapter 6
Inventory Procedure of VIVO

1. Introduction

Inventories are materials, equipment and finished goods at a point of time that are considered to be the portion of a business's assets that are ready, will be ready for production or sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents how frequently inventories are converted into sales/revenue and/or assets to support business operations. It is important to ensure that all inventories are properly recorded as per appropriate accounting standard and adequate management and control process are maintained to facilitate balance sheet analysis, the valuation, physical verification reconciliation and to ensure effective control over their movement.

2. Scope

This Procedure is applicable for all departments within the company, having direct and indirect control over physical inventory, reporting of inventory or management of inventory. This document covers following areas of Inventory Management.

3. Definition

Inventories shall include the following broad categories of   items:

3.1 Raw Inventories: Raw materials are the basic materials that a company buys from its suppliers and that are used by the former to convert them into the final products by applying a set of manufacturing processes & stock that have not yet been used in work-in-process or finished.

3.2 Finished Goods Inventory: Finished goods are indeed the final products obtained after the application of the manufacturing processes on the raw materials and the semi-finished goods discussed above in the article. They are saleable and their sale contributes fully to the revenue from the core operations of the company.

3.3 Operating expenditure related (consumables): Network and IT consumables (cables and wares), which are not used yet and carried at "zero" value.

3.4 Safety Stock is defined as extra units of inventory carried as protection against possible stock-out due to demand volatility. Maintaining safety stock is a good practice since the company may not be certain about either the demand for the product or lead time or both due to supply constraints.

3.5 Stock in transit represents inventory which does not yet physically exist in the stores. It is commonly referred to as current asset ordinarily classified under the sub heading of Inventory items within the balance sheet. Items for which L/C has been opened but yet to receive in systems.

3.6 Obsolete Inventories refers to inventory that is of no use for a set period of time, usually determined by the industry and as per obsolete inventory disposal process.

3.7 POSM: It means Point of Sale Materials which is the advertising materials, gift items

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that are used to communicate brand information to the consumers at Point of Sales.

3.8 Packing Items: The packaging was initially intended to provide protection for the item as it is being handled in the warehouse or when the item is being transferred. Packaging can be extremely elaborate, and for the consumer, it can be an art form to entice to make a purchase. For businesses, the packaging on an item should be sufficient to limit any damage to the item as it is moved in the warehouse. The primary task for packaging is to minimize the damage that could occur after an item has left the production line

4. Categories of Inventories:

Most of the organizations inventory is categorized according to ABC Classification Method, which is based on praetor principle. Here the inventory is classified based on the value of the units. This kind of categorization of inventory helps one manage the entire volume and assign relative priority to the right Category.

4.1 A Category Items helps one identify these stocks as high value items and ensure tight control in terms of process control, physical security as well as audit frequency. It helps to maintain accurate records and draw management's attention to the issue on hand to facilitate instant decision-making.

4.2 B Category Items are important, but of course less important than 'A' items and more important than 'C' items. These are typically mid-range in inventory value and order frequency.

4.3 C Category Items are marginally important. Typically, very low order frequency and high inventory value. These items are usually stocked with very low quantities or not at all due to the high carrying costs associated with the stock levels.

5. Classification of Inventory

Inventories are broadly classified into following two (02) categories:

Sl#	Broad Category	Items
1	Capital Inventories	RAW Products.
2		Finished Products.
3	POSM	Advertising materials, Gift items.

6. Major functions of warehouse management:

- Receiving the Goods
- Inspect goods & receiving Acknowledgement
- Fix the location
- Materials storage
- Stock Taking
- Processing Request of delivery & Dispatching goods
- Maintaining BIN Card/ Counting sheet/Tracking note
- Maintaining FIFO
- Space Management
- Resource Management
- Safety and Security
- Auction of old/un-useable materials management
- Inventory Verification/Stock Count

6.1 Receiving the Goods:
Types of receiving:

- LC receiving-Foreign & local shipment.
- Finished Goods received

Time of receiving below activities should follow:

- First check mail to confirmation for receiving goods.
- Check invoice, P.O copy, Challan, packaging list & others relevant documents.
- After receiving documents that prepare the documents.
- Verify the reference P.O as against the delivery receipts.
- Check the quantity on the documents as against the actual.
- Time of receiving must check any box with original packing or not.
- If there any box open check it fully as with packing list.
- Request for quality inspection if goods are quality acceptable or not.
- Only quality acceptable are authorized to received.
- Unload the goods.

- Store in assigned area.
- Inform all concerns on the goods received.
- Prepare the receiving report attached the receiving documents from suppliers.
- Record or update inventory records on receive goods.
  If any abnormal inform to relevant concern immediately.
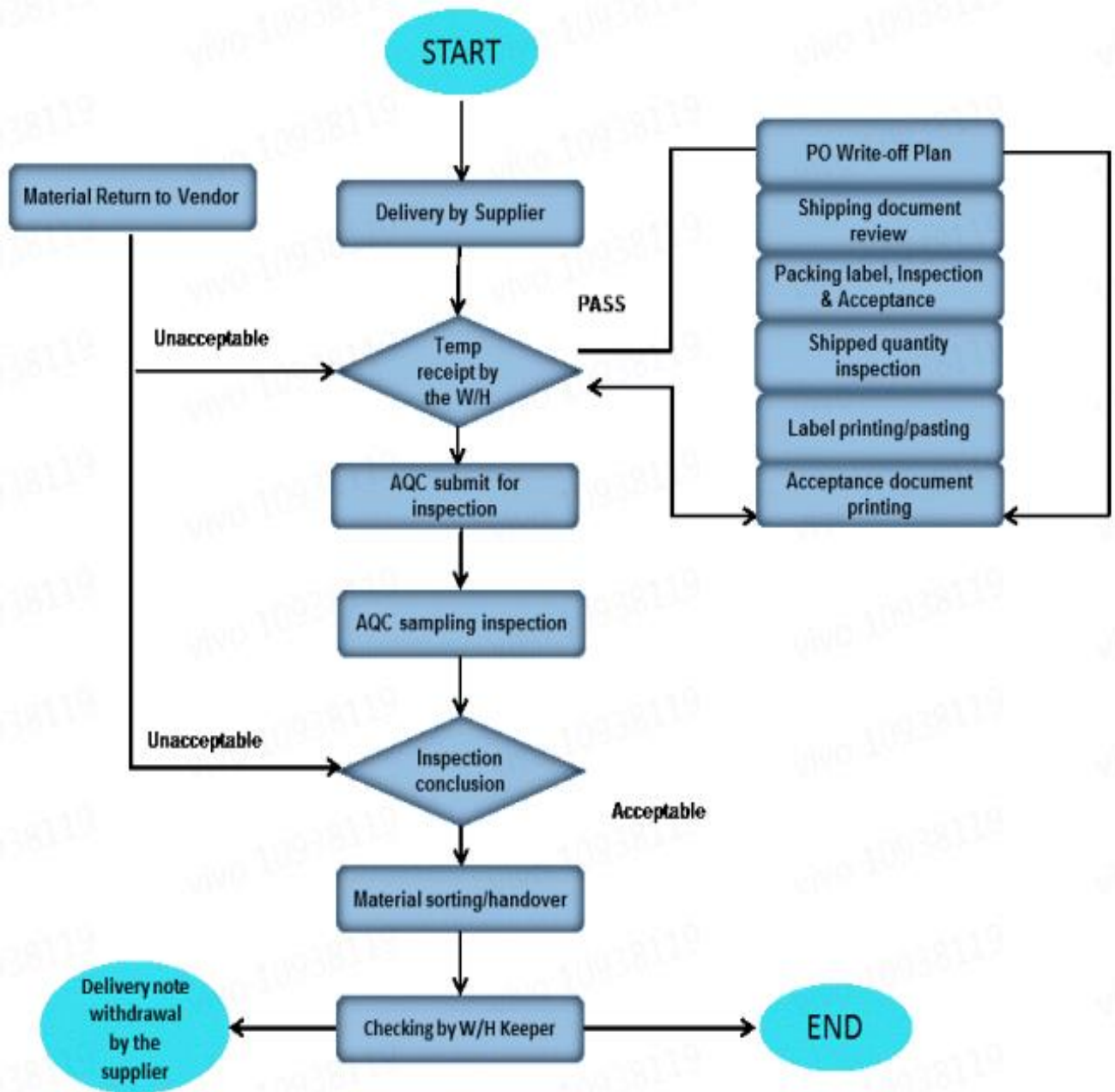
6.2 Inspect goods & receiving Acknowledgement:

A verification check if the product arrived in good condition at warehouse before accepting them into the stock.

> ➢ First open the box.
> ➢ Check physical quantity as per packing list inside the box.
> ➢ Checks all of the products for any damage, mismatch, broken found or not.
> ➢ If any abnormal found immediately inform to relevant concern. Damaged products are set aside so the manufacturer can retrieve the items and offer replacements.
> ➢ Notify to relevant concern about materials.

6.3 Fix the location:

> When a warehouse is being designed, a decision that needs to be made is how to store items. Depending on the items that will be stored in the warehouse. According the material packaging, Size and quantity, to develop a reasonable storage space

6.4 Materials Storage

One of the important requirements of a warehouse has been for storing goods. The warehouse provides the space required for such storage and it is one of the important functions of a warehouse.

> ➢ All items shall be stored properly.
> ➢ Appropriate processes shall be established to ensure systematic storage and ease of retrieval.
> ➢ Depending on the category of inventory, a system-based tool may be considered for this purpose.
> ➢ Concerned employees are responsible to utilize the storage space in an efficient manner.
> ➢ After receiving, goods are stacked according to the instructions described (i.e. temperature, storage method etc.) in the product.
> ➢ In short, make a clear material area lay out, ensure identification sticker easy for identification and stock taking.
> ➢ Material kept as per category Like –PCBA, battery, Main lens unit, display etc.
> ➢ Also need to storage the materials as FIFO method.

6.5 Stock Taking Regularly:

Check material as per time schedule in regularly, respective concern needs to stock Check according ABC classify. Plan different stock taking cycle according different material category.

Check according location: Physical verify all material which exist in that floor / room / location of different locations, each location leader check as per location as time schedule.

6.6 Processing Request of delivery & dispatching goods:

For every delivery plan user provide delivery request with MRF. If any issue notify the user from WH end.
- ➢ Arrange materials as per MRF.
- ➢ Deliver materials by Maintaining FIFO.
- ➢ If required packing the materials.
- ➢ All material transfer must be with relevant papers and ensure document quantity match with the physical quantity.

6.7 Maintaining BIN card/Counting sheet/ Tracking note:

A BIN card is an individual stock-keeping record for each item which are usually display information about a single product that in & out quantity by date wise.

- ➢ Must maintain BIN card after ensued any transaction of materials.
- ➢ Also need to update counting sheet basis on GRN number.
- ➢ If any partial delivery needs to complete from boxes, in this case we will use tracking note into the box & update after every partial delivery.

6.8 Maintaining FIFO:

FIFO stands for "first in, first out", which means the products that have been on the shelf the longest are the first ones take off. The reason it is so popular is because in most storage situations, it's the most practical which received first that out first
Issue and receive material as per GRN number to avoid material expired. Material placed in sort by GRN, the old GRN should in front.

6.9 Space Management:

Space costing is one of major cost for warehouses management. Most companies would like to maximum use the warehouse space. Having a large warehouse is not always good business practice.
A large warehouse means that it's operating cost also high. If we use maximum storage by minimum space that not only save cost of space but also save the land, building, machinery, additional fuel costs for moving forklift, labor costs and delays in loading or unloading trailers.

6.10 Resource Management:

Resource management is important because this is the backbone of any business. Managing and reducing labor-related expenses, while at the same time maintaining actual service levels, improving efficiency and increasing warehouse productivity. Finding the right person and maintaining high productivity levels are essential to keeping labor management costs. A manager is success when he/she able "minimum resource maximum output."
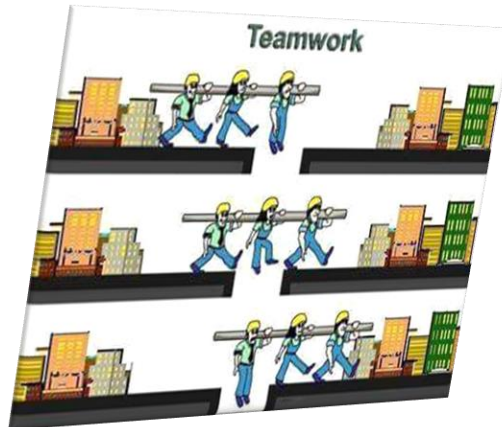
6.11 Security and Safety:

All inventories will be stored in facilities which ensure the security of the inventory from theft and pilferage.

Example potential threats include:

• Theft

• Pilferage

• Heat and humidity

• Vandalism

• Fire

• Loss of electricity–Focuses on protecting products and preventing their theft

To ensure warehouse fire safety, established "three level "fire safety check and fire prevention management system.

Level 1: Store keeper is responsible for his location fire safety;

Level 2: Manager is responsible for checking his location fire safety, check each floor every day as

Per floor check list.

Level 3: Security is responsible for the final supervision of warehouse fire safety, lock warehouse

Main gate after security signature.

Emergency Preparedness for Fire Incident at Office

6.12 Non-Usable Inventory/ Non-Inventory Management

Steps	Activities
Material select for auction:	Segregated old/un-used/scrap items confirmation by user concern for auction.
Collect material list:	Collect old/un-used/scrap material list with material serial, asset number and all material relevant data from user with confirmation for auction approval.
Arrange material and accumulated space:	After getting list material arrange by material types and accumulate space under an auction Lot.
Auction material inspection:	As per schedule, participant lot inspection with relevant concerned (enlisted vendor/ user concern/ WH concern) person submitted inspection report.
Auction material delivery:	Auction lot delivered as pre-schedule with all relevant concerned (elicited vendor/ technical concern/ WH concern/ security concern) person presence.
Submitted delivery declaration report:	Finally completing all processes, we have submitted delivery declaration report.
Non-Inventory management:	Non-inventory items like as wastage wooden boxes, carton, poly etc. All we should keep in outside of warehouse as a good way. We will fix a time period or as per quantity volume we will sell it to respective vendor.

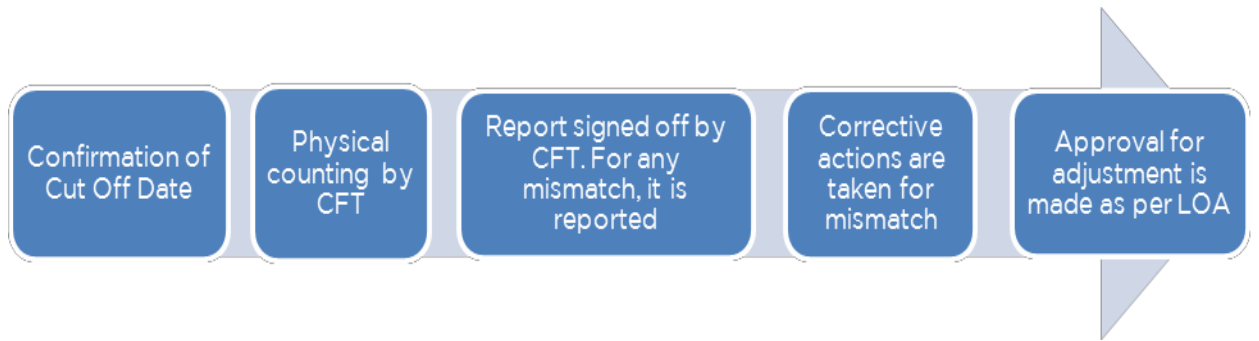**6.13 Inventory Verification/Stock Count**

    6.13.1 Objective

- To protect the inventories of the company and prevent any loss.
- To verify the existence and value of inventory.
- To identify items which are obsolete, damaged or slow moving and take appropriate action to use or dispose of those items at the least possible cost to the company.
- To take the steps necessary to account for any items missing through loss or theft.

    6.13.2 Procedure

- The verification of Inventory will be conducted at every year 3 times and an inventory verification at the financial year-end will be conducted by a cross functional team.
- Inventory team forms a CFT to perform physical counting for raw & finish materials in order to reconcile the quantity of materials against ERP and physical. Apart from this, periodic and surprise physical inventory count is performed by cross functional team consist with the member of users.
- At the time of verification, items to be noted down for damaged/obsolete/unused materials and also report on safety or fire hazards, unsatisfactory storage conditions or similar concerns.

Steps to be followed during stock count:

Confirmation of Cut Off Date	Physical counting by CFT	Report signed off by CFT. For any mismatch, it is reported	Corrective actions are taken for mismatch	Approval for adjustment is made as per LOA

Our Committed is………

Don't accept mismatch!!!!!!
Don't make mismatch!!!!!!!!!!!
Don't provide mismatch!!!!!

Chapter 7
Performance Evaluation

6.1 Performance Evaluation:

When SCM is in focus, performance metrics or evaluations become more and more crucial.

Neely (1999) lists 7 reasons why performance metrics are becoming more popular.

- ➢ Work's evolving nature
- ➢ increased rivalry
- ➢ Specific initiatives for improvement, such as JIT, TQM, and BQR (business process reengineering),
- ➢ Awards for excellence at the national and global levels
- ➢ Organizational responsibilities are shifting from management by objectives under control to management under empowerment.
- ➢ Shifting external requirements. Public sector businesses are required to disclose information regarding their performance.
- ➢ Information technology's power

6.2 Different performance metrics

According to Adams et al. (1995), financial accounting-based performance measurements have long been the main technique. Performance management now focuses more on customer value than cost control due to changes in the business environment.

Measuring in both quantitative and qualitative terms

What SCM level should be evaluated?

Measurements both financial and nonfinancial

Which measurement ought to be used?

Measuring both internally and outside.

6.3 Methods for performance measurements

Equilibrium scorecard

A paradigm for evaluating an organization's performance is the balanced scorecard. Both financial and non-financial data are included in the scorecard. The measures that must be included in the scorecard are not generally defined. The measuring standards vary between businesses and even within the same business between sections. Four broad types have been

recognized by Kaplan and Norton (1996):

- Financial measures
- Customer-related measures
- Internal performance
- Learning

Financial metrics emphasize return on investment and economic value contributed. Market share and customer satisfaction are metrics relating to customers. Measures of internal performance also take cost, reaction time, and quality into account. The learning category covers characteristics of employment such knowledge retention, skill improvement, and information.

The balanced scorecard framework must be connected to the supply chain mission. The scorecard's contents are decided by management. For instance, the scorecard might be broken down into categories like financial, customer, competitive position, internal efficiency, and staff.

Model SCOR

The SCOR model was created by the Supply Chain Council. Supply Chain Operations Reference is the abbreviation for the model, which is a reference model. The model's main goal is to:

- Establish an SCM standard language that may be applied across industries.
- Support external benchmarking
- Create a framework for supply chain analysis
- Contrast the present Supply chain with the desired outcome.

According to Christopher (1998), the purpose of SCOR is to offer a uniform method for evaluating Supply chain performance and to utilize common metrics to benchmark against other enterprises. The four management processes that make up the SCOR model.

- Supply and demand are balanced in the plan.
- Procurement of goods and services serves as the source.
- Make: transforming of products and services into finished goods
- Deliver: delivery of products and services.

Three tiers make up the SCOR model:

- ➢ The supply chain's scope and content are defined at the top level.
- ➢ Configuration-level creation: supply chain design
- ➢ Process element level: provides thorough details on each process.

Benchmarking

According to Camp (1989), benchmarking is formally defined as a systematic process for determining the best practice and altering real knowledge to attain greater performance. Benchmarking is the process of comparing results to industry standards. When comparing businesses, it is critical to adopt standard measures. According to Splendolini (1992), benchmarking serves the following five fundamental purposes:

- ➢ Strategy: planning for short and long term
- ➢ Forecasting: predict trends
- ➢ New ideas: stimulate new thoughts
- ➢ Process comparisons
- ➢ Setting objectives and targets: base them on best practice

Both internally and externally inside the own organization might employ benchmarking. Internal benchmarking may be used to assess how one department has changed over time as well as to compare many departments. External benchmarking can be used to compare a company's performance to that of its rivals or other high-performing businesses.

Systematic approaches to performance evaluation

The shortcomings of a single supply chain measurement are discussed by Beamon (1999). Beamon concludes that the biggest flaw in a measurement is that it doesn't account for everything. It must evaluate every relevant element of the supply chain and avoid being under optimized.

Chapter 8
Findings and Recommendation

8.0 Findings and Recommendation

8.1 Findings

- ➢ Latest & unique features are available in affordability

- ➢ Prices that are reasonable: Vivo phones are frequently more reasonably priced than other luxury brands, making them a popular option for people on a tight budget.

- ➢ High-quality cameras: Vivo phones are known for having high-quality camera systems with features such as multiple lenses and high-resolution imaging.

- ➢ Strong battery life: Vivo phones often have larger batteries, which provide long-lasting battery life and reduce the need for frequent charging.

- ➢ Sleek designs: Vivo phones are known for having sleek, attractive designs that are eye-catching and stylish.

- ➢ Limited availability: Vivo phones may not be available in all regions or countries, which can make them difficult to obtain for some users.

- ➢ Limited software updates: Vivo phones may not receive as many software updates as other brands, which can lead to compatibility issues with certain apps or services.

- ➢ Limited brand recognition: Vivo is a relatively new brand and may not have the same level of brand recognition or reputation as more established brands like Sony and Samsung.

8.2 Recommendation

I am working with the supply chain management department of vivo communication technology company ltd. Because of this, it was simple for me to watch how the corporation conducted its whole operations. I have some suggestions that I mentioned, I hope this will help for the improvement of the business.

- The company must carry out thorough market research. It makes it easier for them to connect with potential consumers and comprehend their needs and wants.
- The company should give more focus on processor quality.
- The company should set the prices that is reasonable for all the level of customer.
- The company must hire experienced developers to innovate new technology and feature that can attract the customer.
- The company should take the customers feedback and review them to find the gap.
- The company should work for employee satisfaction and benefit that can boost the productivity and increase the efficiency at workplace.
- The company must arrange external and professional training for the current employees to introducing new technologies.

Chapter 9
Conclusion and Reference

9.0 Conclusion and Reference

9.1 Conclusion

My working experience has convinced me that VIVO is a top-notch organization. VIVO does not cut corners when it comes to quality, commitment, or discipline, which helps them build their company effectively. My research has led me to the conclusion that VIVO offers the finest after-sales support and top-quality phones in the Bangladeshi market at competitive prices. My involvement in such a corporation would make me happy right now because I have a lot of expertise with SCM operations. I discovered that learning via experience is far more varied than learning from books. I have picked up a lot of knowledge that is crucial to both my school and profession.

9.2 Reference

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