# PICK PRODUCTIVITY IMPROVEMENT, DEA MISS AND PICK SHORT REDUCTION

*Project report submitted in partial fulfillment of the requirement for the degree of*

## BACHELOR OF TECHNOLOGY

## IN

## ELECTRONICS AND COMMUNICATION ENGINEERING

By

**Priyanshi Rastogi     (161016)**

**UNDER THE GUIDANCE OF**

**Prashant Parihar**

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**AMAZON SELLER SERVICES PRIVATE LIMITED (INDIA)**

**May 2020**

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# DECLARATION

I hereby declare that the work reported within the Project Report entitled **"Pick Productivity Improvement, DEA Miss and Pick Short Reduction"** submitted at Jaypee University of Information Technology, Waknaghat, India is an authentic record of the work administered under the supervision of **Prashant Parihar (Operations Manager), Amazon Seller Services Private Limited, India.**

The matter embodied within the report has not been submitted elsewhere for the other degree or diploma.

Priyanshi Rastogi

(161016)

This is to certify that the above statement made by the candidates is correct to the best of my knowledge.

**Prashant Parihar**

**(Operations Manager)**

**Amazon Seller Services Private Limited, India**

**Date:** 24 May 2020

# CERTIFICATE

This is to certify that the work which is being presented within this project report titled **"Pick Productivity Improvement, DEA Miss and Pick Short Reduction"** for partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering and submitted to the department of Electronics and Communication Engineering, Jaypee University of Information Technology, Waknaghat is an authentic record of work administered by **Priyanshi Rastogi** (161016) during a period of February 2020 – May 2020 under the supervision of **Prashant Parihar** (Operation Manager), Amazon Seller Services Private Limited, India.

This is to certify that the above statement made by the candidate is true to the best of my knowledge.

**Prashant Parihar**

**Operations Manager**

**Amazon Seller Services Private Limited, India**

Date – 24 May 2020

# ACKNOWLEDGEMENT

First of all, I wish to express my deep gratitude to my project guide **Prashant Parihar** *(Operations Manager),* for providing the chance to work under his supervision and guidance. He has always been the motivation for completing the project. His constant encouragement at every step was a precious asset during the project work.

It is my privilege to precise my deep appreciation and sincere thanks to the entire **Outbound Team** for providing all types of possible help and encouragement during our project work.

I am also thankful to the faculty and staff of Department of Electronics and Communication Engineering, Jaypee University of Information Technology for providing us such a chance to explore.

At last I would like to thank my parents for their continuous support and motivation and people who directly or indirectly helped in completion of this project.

Priyanshi Rastogi
(161016)

Date – 24 May 2020

# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| **LP** | Leadership Principles |
| **AWS** | Amazon Web Services |
| **FC** | Fulfillment Center |
| **IB** | Inbound |
| **OB** | Outbound |
| **C-Ret** | Customer Return |
| **ICQA** | Inventory Control and Quality Assurance |
| **FCD** | Fulfillment Center Dock |
| **OM** | Operation Manager |
| **AM** | Area Manager |
| **TL** | Team Lead |
| **PS** | Problem solver |
| **PA** | Process assistant |
| **AA** | Associates |
| **UPH** | Units Per Hour |
| **DEA** | Delivery Estimated Accuracy |
| **ASIN** | Amazon Standard Identification Number |
| **CPT** | Customer Pull Time / Customer Promise Time |
| **PP** | Process Path |
| **V-Ret** | Vendor Returns |
| **FRACS** | Fulfilling Removals as Customer Shipments |

**FPS**                          False Pick Short

**TPS**                          True Pick Short

**GTS**                          Global Transposition System

**PDD**                          Promised Delivery Date

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**DESCRIPTION**                                                    **PAGE No.**

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**DESCRIPTION**                                                          **PAGE No.**

# ABSTRACT

I was an Operations Manager Intern at Fulfillment Center under Amazon Seller Services Private Limited (ASSPL), India. ASSPL is liable for everything that is taken from the sellers and provided to homes of consumers. It focuses on providing large variety to settle on from for the customer and fulfilling it within minimal time.

As an Intern I given responsibility of three important metrics – Pick Productivity, DEA Miss and Pick Shorts that were necessary for completing the process in Outbound within the FC.

My role was to research the info and trend of the above mentioned metrics and work on the blockers to optimize the problems in accordance to realize the targeted goal.

So within the overall report structure you'll find our various analysis, methods and action plan which are utilized in order to form the method better and with the very fact that everything was inclined in a way that data is to be organized in order that performance as an entire are often improved.

# CHAPTER 1

# INTRODUCTION

## 1.1  About Amazon

Amazon is earth's most customer centric company that enable various Amazon businesses including Amazon websites across the planet also it supports Payments, Transportation and Digital products and services like the Amazon Web Services (AWS), Amazon video, Amazon Kindle, Amazon Echo, Amazon Appstore and its e-commerce site Amazon.com which as of now branches out in many countries. The CEO & Founder, Jeff Bezos incorporated the Amazon.com in July 1994. Amazon has today firmly established itself as the global leader in e-commerce.

Amazon in India goes by the name of Amazon.in. The Amazon teams India work on the complex business challenges to innovate and create efficient solutions. Amazonians are offered an environment in which they can invent and innovate to make Amazon the Earth's most customent centric company. At Amazon, there is never a dearth of opportunities to dive in, work with smart people on challenging problems and make an impact that contributes to the life of millions.

## 1.2 Businesses at Amazon

### 1.2.1   Vision

Amazon's vision is to be Earth's most customer – centric company where people can find and discover anything they want to buy online.
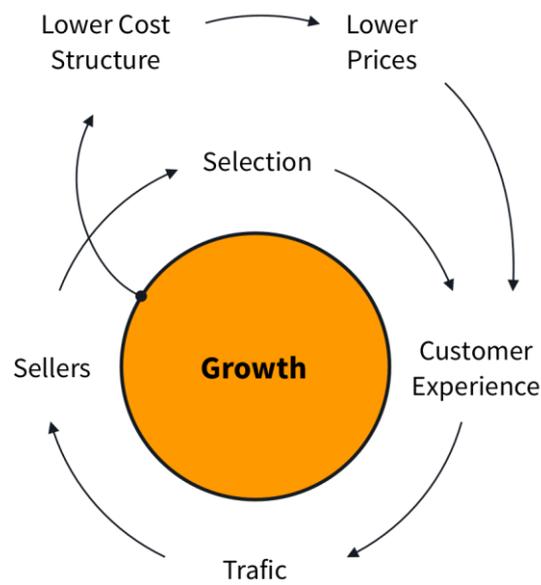
### 1.2.2  Strategy



Figure 1.1 Business Model of Amazon

### 1.2.3  Different Areas of Business

- **Technology –** Amazon Web Services, Amazon Enterprises Solution and E- commerce Platform.

- **Operations –** World class fulfillment and customer service centers, Order Processing and fulfillment services.

- **Consumer –** Media Softlines / Hardlines consumables.

- **Corporate Functions –** Business development, Finance, Human Resources and Legal.

### 1.3 Leadership Principles

The Leadership principles drives the amazon or we can say it provides a blueprint on how to operate and how to do things every day at Amazon. At Amazon whether you are an individual contributor or a manager of the large team you are an Amazon leader, these LP applies to everyone. These help a leader to access quality of thinking when making though decisions.

The following are the 14 Leadership Principles that are practiced at Amazon:

- **Customer Obsession**

Leaders start with the customer and work backwards. They work vigorously to earn and keep customer trust. Although leaders concentrate to competitors, they obsess over customers.

- **Ownership**

Leaders are owners. They think future and don't sacrifice long-term value for short-term results. They act on behalf of the entire company, beyond just their own team. They never say "that's not my job."

- **Invent and Simplify**

Leaders expect and need innovation and invention from their teams and always find ways to simplify. They are externally aware, look for new ideas from everywhere, and aren't limited by "not invented here." As we do new things, we accept that we could even be misunderstood for long periods of time.

- **Are Right, A Lot**

Leaders are right a lot. They have strong judgment and good instincts. They seek diverse perspectives and work to disconfirm their beliefs.

- **Learn and Be Curious**

Leaders are never done learning and always seek to enhance themselves. They are interested by new possibilities and act to explore them.

- **Hire and Develop the Best**

Leaders raise the performance bar with every hire and promotion. They recognize exceptional talent, and willingly move them throughout the organization. Leaders develop leaders and take seriously their role in coaching others. We work on behalf of our people to create mechanisms for development like Career Choice.

- **Insist on the Highest Standards**

Leaders have relentlessly high standards — many of us might imagine these standards are unreasonably high. Leaders are continually raising the bar and drive their teams to deliver top quality products, services, and processes. Leaders make sure that defects don't get sent down the road and the problems are fixed in order that they stay fixed.

- **Think Big**

Thinking small is a self-fulfilling prophecy. Leaders create and communicate a bold direction that inspires results. They think differently and search around corners for tactics to serve customers.

- **Bias for Action**

Speed matters in business. Many decisions and actions are reversible and don't need extensive study. We value calculated risk taking.

- **Frugality**

Accomplish more with less. Constraints breed resourcefulness, self-sufficiency, and invention. There are not any extra points for growing headcount, budget size, or fixed expense.

- **Earn Trust**

Leaders listen attentively, speak candidly, and treat others respectfully. They are vocally self-critical, even when doing so is awkward or embarrassing. Leaders don't believe their or their team's body odour smells of perfume. They benchmark themselves and their teams against the simplest.

- **Dive Deep**

Leaders operate in the least levels, stay connected to the small prints, audit frequently, and are skeptical when metrics and anecdote differ. No task is beneath them.

- **Have Backbone; Disagree and Commit**

Leaders are obligated to respectfully challenge decisions once they disagree, even when doing so is uncomfortable or exhausting. Leaders have conviction and are tenacious. They do not compromise for the sake of social cohesion. Once a decision is determined, they commit wholly.

- **Deliver Results**

Leaders specialize in the key inputs for his or her business and deliver them with the proper quality and during a timely fashion. Despite setbacks, they rise to the occasion and never settle.

# CHAPTER 2

# PROCESS OVERVIEW

## 2.1 Amazon Operations Structure

Amazon Operations in majorly divided into three following parts:-

      i)      Fulfillment Center

      ii)     Sort Center

      iii)    Delivery Center

These center provides the chained path through which a customer gets its order placed, packed and

delivered.

- **Fulfillment Center** - It is the first stage which is responsible for receiving of products from the sellers and then processing them to manage the inventory in the warehouse and to pick, pack and depart them further to the next stage. This is also known as First Mile of Operations.

- **Sort Center** – It is the second stage which is responsible for sorting all the packages and shipments with respect to different delivery stations and sort centers. This is known as Middle Mile of Operations.

- **Delivery Center** – It is the third and the last stage which is responsible for sorting and delivering the shipment to the customer. This is known as the Last Mile of Operations.

## 2.2 Structure of Fulfillment Center

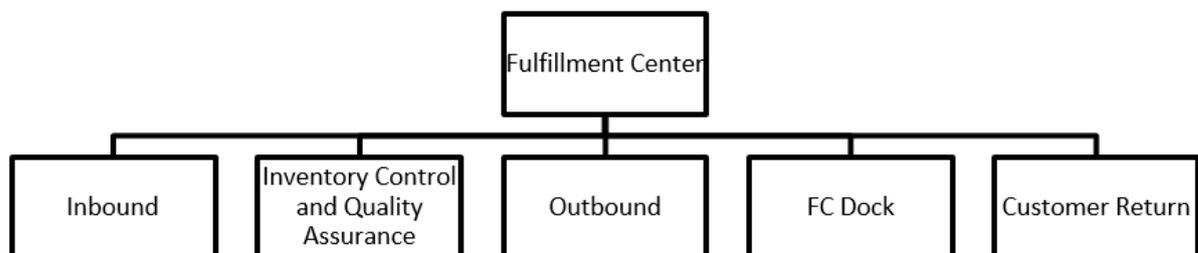Amazon Fulfillment center has following departments as its division:-



**Figure 2.1 Departmental structure of FC**

**Inbound (IB) –** The IB is responsible for receiving all the items from the sellers and other fulfillment centers, prepping of the items which are fragile or can leak and then stowing them in the inventory.

**Outbound (OB) –** This department processes three kinds of shipments – Transshipments (Items to be sent to other fulfillment center), Vendor Return (all items that are either damaged or overstock are sent back to sellers) and lastly Customer shipments where all the items which have customer order attached to them are picked, sorted and then packed.

**Inventory Control and Quality Assurance (ICQA) –** The prime responsibility of this department is to manage the inventory and its quality.

**FC Dock (FCD) –** The FCD is responsible for securely and timely unloading and loading of all items from the truck. This team gets further divided as IBDock and OBDock.

**Customer Return (C-Ret) –** All the orders which are returned by the customer are tested by this department and stowed into the inventory again.
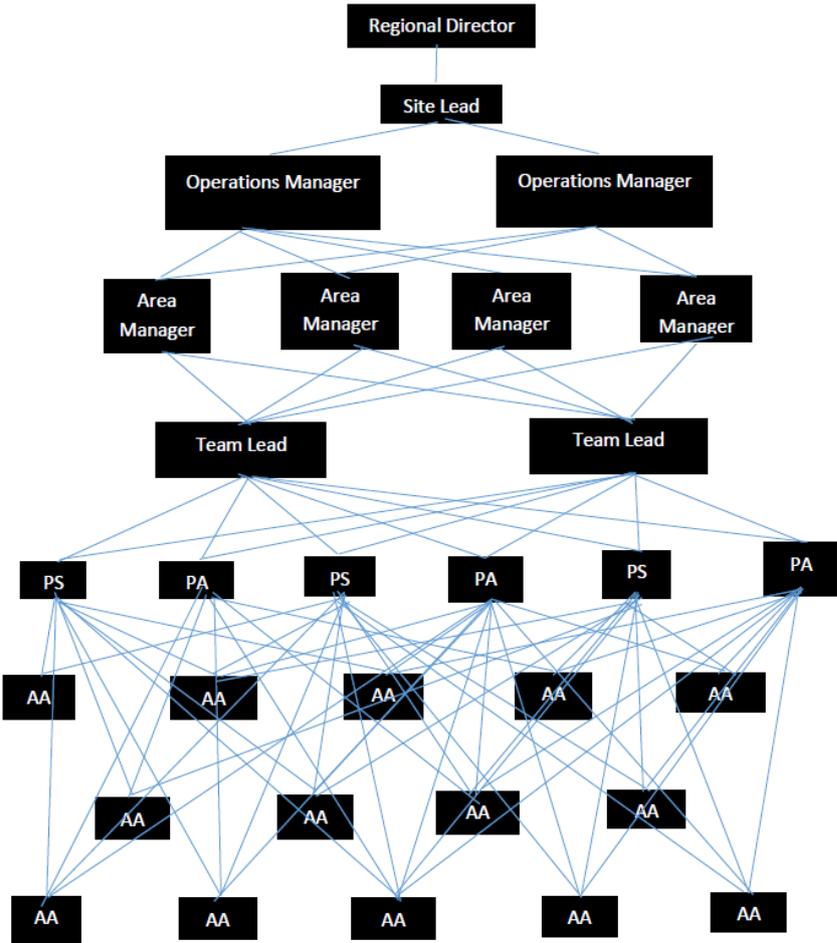
The Managerial Hierarchy as follows:



**Figure 2.2 Managerial Hierarchy of FC**
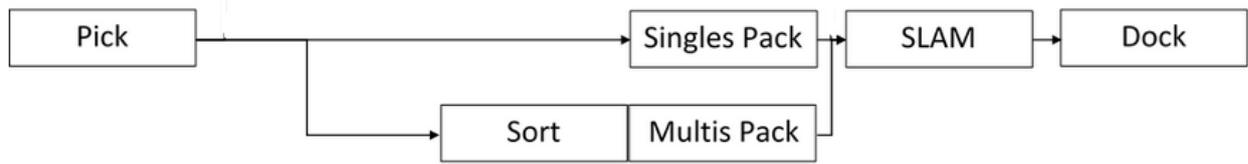
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## 2.3 Outbound Process Cycle



**Figure 2.3 Outbound process**

### 2.3.1   Pick

The very first part of Outbound Process is Pick. The Items are referred as ASIN – Amazon Standard Identification Number, the ASIN having order attached to it is tracked against a fulfillment shipment ID. These items are picked on basis of particularly set Process Paths (PP) in accordance to further segregate the shipment with single order, multiple order and other on basis of type of ASIN. Singles PP may include shipments having only one ASIN whereas Multis PP may include shipments having more than one ASIN.

The picking is done in inventory and to make it more productive the Inventory is divided into different Pick Area which includes several aisles of bins where all the items are kept. The orders to picked are assigned by the Pick PA in accordance to CPTs.

### 2.3.2   Sort

All the shipments are picked by the pickers in totes and cages. The pickers drop off the totes on the conveyor and brings down the cages from the inventory. The totes containing shipments of Singles PP goes directly to the Packing stations whereas the totes containing Multis Shipments goes directly to wrangling area via conveyor. The wrangler present in wrangling area sorts the totes into batches which then goes to Rebin station which segregates shipments of different customers but also combines the ASINs belonging to single customer who has ordered multiple items. This is done in order to save packaging and transportation cost.

### 2.3.3  Pack

The shipments are packed on different station depending on them being a Singles or Multis Shipment, V-ret also known as FRACS and Transshipments. The shipments are packed into various cardboard boxes, polybags and some are just shrink wrapped and shipped in own container for Customer Shipments and V-Ret whereas for transshipments the shipments are simply placed in the cardboard boxes

### 2.3.4  Slam

At Slam station the shipment label is printed in order to attach tracking ID to the shipment. Here a weight check of shipment is done in order to verify any faults like shortage or overage in the shipment. From here the shipment is handed over to FCDock or OBDock to load them in the scheduled vehicle, secure it and depart them timely without missing the CPT.

# CHAPTER 3

# PROBLEM STATEMENT AND APPROACH

In this chapter we will overview the following mentioned topics and research on current problem and then formulate the approach.

   i)     Pick Productivity Improvement

   ii)    DEA Miss Reduction

   iii)   Pick Short Reduction

## 3.1 Pick Productivity Improvement

Pick productivity includes two major buckets namely Idle Time and UPH (Units Per Hour).

- **Idle Time**

  During picking, if associate takes higher time between the bins than the expected time (time required as per travel time map calculation) then that time is considered as idle time. Also when a picker does a cart changeover or his/her process path is changed – there is an idle time involved.

- **UPH**

  UPH refers to units per hour that is number of units picked by picker in an hour. This can also be referred as the rates given by picker.

### 3.1.1   Detailed Problem Statement

The UPH in the month of March seems to be at a downfall as compared to previous month's data. Also lower rates means higher Idle time. Both of these metrics severely affect the Pick Productivity. Therefore in order to improve it, the root causes for such downfall needs to be discovered and accordingly solutions need to be found.

### 3.1.2 Approach

The approach was to capture or extract the data for Idle time and UPH from specified portal and then analyzing the data from various angles. The data includes list of Pickers with their UPH for given PP and direct – indirect hours.

The basic formula for calculating Idle time is as follows:

$$Idle\ Time\ (\%)\ =\ \frac{Indirect\ Hours}{Total\ Hours}\ *\ 100$$

The Idle time for a picker should be ideally less than 7 % whereas the picker should have UPH equal to or more than the targeted UPH for the particular PP.

The data could also reveal the root causes for low UPH and High Idle time and could also help figuring the PP, Pick Areas and Pickers that are contributing most in lowering the Pick Productivity.

### 3.2 DEA Miss Reduction

DEA refers to Delivery Estimated Accuracy. It is a significantly important metric from customer experience perspective. DEA miss happens due to non-availability of last unit, wherein once order is bound to the last unit and same unit is not fulfilled by FC due to last inventory items either marked missing or damaged.

### 3.2.1 Detailed Problem Statement

When a last inventory is marked either missing of damaged, it means that the FC could no longer fulfill the order. Then the order either gets cancelled or gets attached to different FC which has its impact on the promised delivery date to shift. This hampers the customer experience. So for this metric DEA Miss needs to be reduced as much as possible.

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### 3.2.2 Approach

The approach was to pre-check the last inventory in order to prevent it from being marked missing or damaged before any order gets attached to them. In order to do so, the data from last inventory was to be captured from designated portal and further list of bins to be checked is to be optimized as the data from the portal hands out the list of 2 lakhs items to be checked. The bins could be optimized by excluding the picking subtotal and then filtering the major contributing items with on basis of velocity and GL.

### 3.3 Pick Short Reduction

An ASIN is marked missing at the time of picking when it is not physically present is the bin, this adds to Pick Shorts. A picker marking an ASIN missing could be a True Pick Short (TPS) or a False Pick Short (FPS).

- **TPS –** When a picker marks an item missing when an item is truly not available in the bin it adds to True Pick Short.

- **FPS –** When a picker marks an item missing but the item is available in the bin it is called False Pick Short.

### 3.3.1 Detailed Problem Statement

When an ASIN is marked missing the picker needs to check all the items present in the bin. If the ASIN marked missing is the case for FPS then this is not acceptable. The FPS needs to be zero and root causes of Pick shorts needs to be known in order to reduce them. The Pick Shorts directly contributes to DEA. Thus making an important metric for quality of inventory as well as customer experience.

### 3.3.2 Approach

The idea was to figure out the major causes for Pick shorts for which the data was captured them the Pick short data portal which gives the list of bins with respective ASINs marked missing by relevent picker. The same data is to be checked for FPS in order to find the defaulter. The defaulter is to be coached on his barriers. The data of items found or reconciled needs to be compiled in order to understand from where the ASINs are added back from.

# CHAPTER 4

# DATA ANALYSIS

**4.1 Pick Productivity – Data Analysis and findings**

Two most important things to focus for pick productivity are as follows:

i)      **UPH –** Every PP have different set or targeted UPH.

ii)     **Idle Time –** It needs to be maintained below 7 % for every AA.

Initially to start with the productivity data for two months – February and March were compared in order to find factors for decrement in productivity. We noticed that overall UPH reduced in March and delta to plan had increased sharply.

Then the data of AAs process was analyzed for both the months on basis of Size category, PP, Pick areas and individual Picker level. This data gives various fields of Units Picked Indirect Hours, Direct hours, Total Hours and UPH for respective Picker.

- From Size category analysis we saw that all the categories were adding to higher idle time and lower UPH whereas Medium category contributed a little more than the rest.

- From PP Analysis on comparing data for both months some specific PP contributed more in increasing idle time and decreasing UPH whereas some PP for both the months have high idle time and low UPH as a trend.

- From Pick Area analysis we found that some specific Mods contributes most in growing idle time  and reduced UPH for both the months.

- The units picked from concerned Pick areas was checked in accordance to set ratio in order to see that contribution of each pick area is balanced in with respect to set ratio.

- As per the standards most of the picking must be done from P1 whereas from the analysis of past two months, it has been noticed that P3 is also contributing a good number as compared to P1 which happens to affect UPH and idle time.

- A formula was generated in order to categorize Process paths, Pick areas and pickers on the basis of set UPH for particular process path and idle time constrained to 7% in order to find root faults.

- The PP analysis using the formula provided us with the list of picker that can give better rates and less idle time in particular process path and number of PP changed for a picker.

- The PP from the Size category – PP analysis are highlighted in PP – Pick Area analysis to get the core Pick area causing issue in major PP for a give Size category.

- Also on observation basis some minor factors which affects the Idle time and UPH are:
    - Tote/Cage changeover time
    - Process Path changeover time
    - No More Work
    - Hotpick PS might get engaged helping other Pickers
    - Getting Barcode printed
    - Searching for PS for LPN scan
    - HRV checking
    - New pickers might take time in searching for locations.

**4.2 DEA Miss – Data Analysis**

For DEA Miss Data analysis initial issue was large number of bin to check for last inventory. Since it is not possible to manually check all the bins, so number of these bins needs to be optimized keeping in mind to prioritize those which have more chances of DEA Miss.

- The data for March DEA miss was combined together and then compared with the data of all ASIN marked missing in the same month which helped in finding which of the process is major cause for DEA Miss.

| Process | QTY of DEA Miss |
|---|---|
| Pick | 89 |
| Pack | 2 |
| Problem Solve | 13 |
| Unknown | 9 |

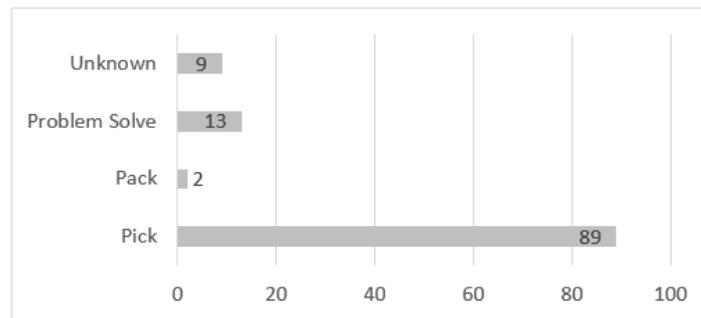**Table 4.1 Process contribution in DEA Miss**



**Figure 4.1 Process Contribution in DEA Miss**

This concluded that most of the ASINs are marked missing at Pick which further leads to DEA Miss. Also the Unknown category can be DEA Miss due to GTS Fail or ASIN marked damaged.

- The compiled data of March DEA miss was compared with dump of last inventories in order to find velocity of each ASIN which missed its PDD.

- This helped in deciding the velocity bucket to use to optimize number of bins which had more chances of DEA miss.

Also the last inventory dump provided us with the list of ASINs which are stowed back through Return Center and are processed as LPNs which have high chances of getting order attached to them soon.

- On comparing RC ASINs for a few days we found approx. 2000 ASINs goes in and out every day.



**Figure 4.2 Day wise comparison of last inventory present on RC carts**

## 4.3 Pick Short - Data Analysis

With the help of the Pick short data portal, the dump of pick short with fields including picker, quantity, PP, bin and more was retrieved. The same dump list needs to be checked for finding the defaulters for FPS.

- The data for April for Pick shorts was compiled and was compared with the dump of Reconciled ASINs with respective bins. This helped us find how many ASINs marked missing were reconciled and were added via which process to find root cause of ASIN marked missing in the first place.

- From this we found that only ¼ of the missing ASINs were reconciled out of which most of them were cases of TPS.

- The reconciled ASINs data helped in finding from where the ASINs are added back.

- The FPS check helps determining whether it is the picker's knowledge gap or behavior issue or it is issue related to inventory.

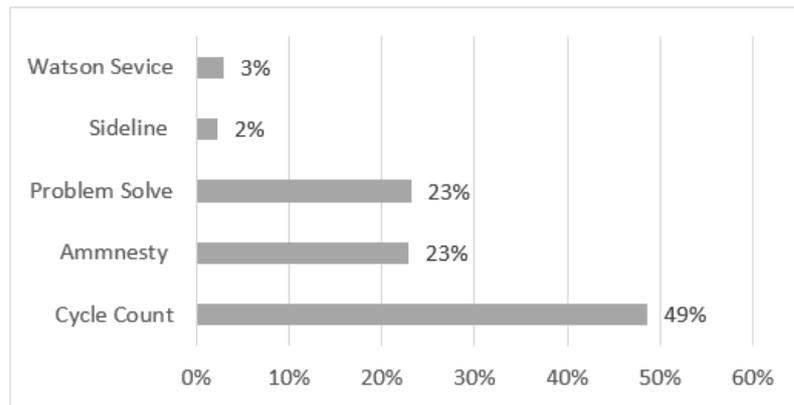| Addback via | %AGE |
|---|---:|
| Cycle Count | 49% |
| Ammnesty | 23% |
| Problem Solve | 23% |
| Sideline | 2% |
| Watson Sevice | 3% |

**Table 4.2 ASINs addback contribution**



**Figure 4.3 ASINs addback contribution**

- The data can also be analyzed by MOD, Aisle and PP wise which provides with the most contributing areas of issue for Pick shorts.

- The d-o-d analysis helps in seeking daily check on top contributing bins and ASINs.

# CHAPTER 5

# ACTION PLAN

## 5.1 Pick Productivity Improvement – Action Plan

In order to improve the Pick productivity certain set of action plans were made which are listed below:

- Process path fixation for pickers as it has been observed that pickers can give better rates and lower idle time while accustomed to a particular PP.

- As per the standards most of the picking must be done from P1 whereas from the analysis, it has been noticed that P3 is also contributing a good number as compared to P1 which happens to affect UPH and idle time therefore a list of ASINs for consolidation picking, to be picked from P3 and stowed on P1 is to be made.

- Placing a system and I/O printer inside inventory for speedy B00/X00 print and LPN scan.

- Frequent checking of empty totes and cages at designated location, if not then immediately ask spider to do that.

- Empty Cages for P3 and P2 should be located in G mod itself.

- Minimum 5 Empty totes to be always present at tote drop zone near conveyor.

- The defaulters for low UPH and High idle time should be segregated on basis of the formula made as a picker having low UPH and low idle time has scope of improvement.

## 5.2 DEA Miss Reduction – Action Plan

- Last inventory bin audit list to be made on basis of velocity (0-50) and GL filters.

- Changes can be done to velocity bucket as per weekly trends.

- ASINs stowed via Return Center can be checked then and there.

- Fetch LPNs via query since a lot of ASINs have LPN labels but in Ripple query they are still aligned via B00/X00.

- Macros for optimizing the data daily and fetching LPN can be made to reduce time taken to make the list.

## 5.3 Pick Short Reduction – Action Plan

- More frequent putback from amnesty bins must be done as a lot items marked missing are found in amnesty bins

- BOOSTA needs to be followed in the bin, due to bin being overfilled

- Coach Pickers

  - Pickers must recognize item on basis of Title and B00/X00 not the image because image seems to be unavailable or miss-matched at times.

  - Pickers must scan all the items properly in the bin while marking missing to prevent FPS.

  - Pickers need to know how to partially mark ASINs missing while picking quantity as the pickers might mark the whole quantity missing and bring along the ASINs which were to be picked which further generates overages.

- Quarterly handover of overages from POPS IB as these items may have order on them and while they are not at their respective bins they are marked missing.

- More CC is required to be done for MODs majorly contributing to Pick shorts.

# CONCLUSION

Outbound is one of the critical functions of Amazon Fulfillment centers. It is responsible to process the customer orders, transshipment order and V-Ret order based on its pre decided CPTs which includes functions i.e. Pick, Rebin, Pack, Slam, Problem Solve and Shipping of the shipments/orders.

In this project the focus was to analyze data for Idle time, UPH, DEA Miss and Pick Shorts as much as possible and then forming some feasible action items. The actions plans needs to be formed in such a way that it do not hinder the already existing process and methodology and that could help improvise the productivity. By keeping the same in mind the action items for all above mentioned projects were made which on implementation and regular monitoring can help maintain good results.

These projects not only helped in improving skills in Excel but also helped in targeting root causes by deep diving into the problem and then accordingly formulating its solution.

# JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
## PLAGIARISM VERIFICATION REPORT

Date: 17 July 2020

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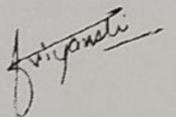
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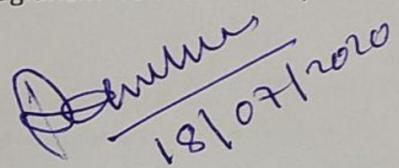
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I Mr. /Ms. __Priyanshi Rastogi__ -Roll No. _____161016_____
Branch __Electronics and Communication Engineering__ is doing my
internship with _____Amazon_____ from __03-02-2020__ to __26-06-2020__

As per procedure I have to submit my project report to the university related
to my work that I have done during this internship.

I have compiled my project report. But due to COVID-19 situation my project
mentor in the company is not able to sign my project report.

So I hereby declare that the project report is fully designed/developed by me
and no part of the work is borrowed or purchased from any agency. And I'll
produce a certificate/document of my internship completion with the company
to TnP Cell whenever COVID-19 situation gets normal.

Signature_____

Name ___Priyanshi Rastogi____

Date _____31-May-2020_____