



CERTIFIED WAREHOUSE KAIZEN PRACTITIONER

PROGRAMME SUMMARY

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INTRODUCTION

The proposed certification program is designed and developed in collaboration with JILS, Japan supported by AOTS, Japan and METI, Japan. The programme is intended to prepare professionals with insights into “warehouse kaizen practices” and hands on exercises. The programme contains three modules as follows:

1. Warehouse operations overview
2. Warehouse Kaizen
3. Warehouse Kaizen workbook

MODULE 1: WAREHOUSE OPERATIONS OVERVIEW

This module is a pre-requisite to learn and participate in Warehouse Kaizen workshop covered through module 2. Lecture sessions are conducted online and follows self-paced learning format. The module includes pre-recorded lectures and assignments which are designed to check the progress of participants learning at various stages. At the end of this module, participants will be able to

- Recognize the key role of warehouse in supply chains
- Familiarize with all relevant areas of warehouse
- Learn about common warehouse operations planning practices
- Explain the need to focus on warehouse excellence to achieve supply chain goals

UNIT 1: OVERVIEW OF SUPPLY CHAINS

Learning outcome: To understand prime importance of supply chain management in business

Supply chain management is a broad management practice area that goes beyond enterprise boundaries encompassing suppliers and customer organizations. Establishing and accomplishing common goals in supply chain is important to be competitive.

Warehouse managers need to be aware of key supply chain perspectives to appreciate need to coordinate and actively cooperate with other supply chain partners. This unit attempts to provide overview of core supply chain principles and outlines key drivers of supply chain performance.

Cost and service trade-offs are common in any service business. Perception of warehouse value in supply chain influences cost-service trade-offs. Such inputs prompt managers to go beyond cost reduction to reducing trade-offs.

Problems arise due to poor planning and if analyzed they can be fixed. This unit further highlights various problems in warehouse and outlines commonly used methods to determine root causes. Such knowledge empowers managers to quantify loss due to logistics problems and helps in valid business case development.

UNIT 2: WAREHOUSE INTRODUCTION

Learning outcome: To understand warehouse FEAST (Facilities, Equipment, Activities, Standards, Technology)

A warehouse manager should have better understanding of both commercial and operational aspects of the business. This unit focuses on introducing various types of warehouses, prevailing business models. A brief introduction about commonly noticed team structures would unfold benefits and limitations.

It introduces various layouts and their intended purposes. The emphasis on need for racking standards and specifications will enable readers to reflect on potential cost-benefits. Material Handling Equipment (MHE) is important for deriving productivity gains. It also provides introduction to various MHE and other warehouse equipment and tools. Understanding core operational processes and procedures will lead to better planning and execution. Familiarity with regulatory issues such as fire and safety, duties and taxes and statutory filings is important.

Finally, it also introduces basic warehouse activities and discusses practices related to stock counting and customer service. A brief section on suppliers and automation provides quick insights into the scope of warehouse efficiencies.

UNIT 3: PLANNING WAREHOUSE OPERATIONS

Learning outcome: To understand principles of warehouse operations planning.

Warehouse operations planning requires comprehensive thought process to set right priorities and schedules. Good planning optimizes warehouse resources and improves productivity levels. It has direct impact of customer satisfaction and provides critical insights for budgeting.

This unit begins with understanding of core principles of aggregate planning. As warehouse links supply and demand centers, it is important to consider internal and external constraints to develop good plans.

It also equally emphasizes on resources (men, money and machines) allocation and reflects on layout and visual management. Mechanization of warehouses demand timely maintenance of equipment. It provides overview of good maintenance practices in warehouse.

Productivity improvement requires both planning and implementation. Connecting both is the training. Therefore, this unit also provides brief outline of approach to training in warehouse. Quality of service is key for success in competitive environment. This unit further introduces orientation to quality principles and their application in warehouse. Finally, it presents approach to budgeting and control guidelines.

UNIT 4: WAREHOUSE EXCELLENCE

Learning outcome: To understand the essential elements of warehouse excellence

To keep up with the changing customer expectations and maintain competitiveness, it is important to focus on warehouse excellence. With operational excellence, warehouse can develop efficient systems in which employees focus on fixing problems as soon as they arise or notice problems with lead indicators. All employees can have the information and authorization to solve problems affecting the warehouse.

This unit highlights importance of process improvement and related benefits. It revisits process mapping and its application for identification of improvement scope. Warehouse processes entails sequence of activities leading to expected output / outcome that can be measured. It summarizes common warehouse processes and related performance metrics. Further it highlights internal benchmarking approach to set achievable targets.

It also emphasizes on need for employee motivation. Good practices include ways to recognize contribution from employees and nominating employees for special training. Warehouse excellence has no limits. Following any good maturity model framework would be helpful in navigating through the path of excellence.

MODULE 2: WAREHOUSE KAIZEN

This module is conducted as a combination of lecture and workshop styles. Participants will have an opportunity to interact with trained warehouse kaizen practitioner. The discussions include sharing of various ideas for improvement and hands-on exercise. The examples / cases for discussion will be drawn from both Indian and Japanese industry perspectives. Towards end of the workshop, participants will be able to

- grasp current situation
- plan improvement
- implement, evaluate and establish improvement

UNIT 1: OVERVIEW OF LOGISTICS

Learning outcome: To understand various logistics activities, flows and estimate impact of logistics site improvement on business

Alignment of business and logistics goals is critical for success. This unit attempts to clarify the role of logistics in business success and discusses basic functions. It highlights importance of logistics workflow and emphasizes on extraction of problems. It further quantifies impact of logistics site improvement on corporate management.

Exercise: Create a logistics flow chart

UNIT 2: STRENGTHENING ABILITY OF GRASPING CURRENT SITUATION

Learning outcome: To understand and practice detection problems in logistics site

It is necessary for practitioners to understand the importance of 5S and safety procedures at logistics site. Leveraging the knowledge of logistics workflow, participants will now attempt to recognize actual situation of workplace in-charge. This unit presents various views to be considered while extracting problems and ascertain potential improvements in the logistics site. This unit further discusses on logistics quality, cost and productivity improvement perspectives and introduces before-after approach for recognizing change.

Exercise: Extract problems

Exercise: Consider countermeasures against problems. (Before-After)

UNIT 3: STRENGTHENING ABILITY OF PLANNING IMPROVEMENT

Learning outcome: To understand basics of logistics costs and practice improvement planning using scientific methods.

Process orientation and objective measurement is considered important for the better planning in logistics site. This unit helps in deeper understanding of various logistics management indicators and selection of KPI based on the current situation. Further this unit allows participants to estimate logistics costs through correct recognition of quality and productivity situations in the logistics site.

This unit introduces two key methods – seven quality control tools and KJ method. The practice sessions in this unit sharpens analytical thinking leading to draw up and create improvement ideas for the problems extracted. Further it discusses approach to determine the priority of improvement ideas and establish the feasible plan concretely (purpose, activities, persons in charge, necessary investment, driving force, degree of difficulty, schedule, etc)

Exercise: KPI selection

Exercise: Seven QC tools applications

Exercise: KJ method application

UNIT 4: STRENGTHENING ABILITY OF IMPLEMENTING, EVALUATING AND ESTABLISHING IMPROVEMENT

Learning outcome: Know-how from implementing improvement to attaining its achievement, then evaluating, establishing and horizontally deploying the achievement.

In order to implement the planned improvement scheme and attain the achievement, it is important to have commonly agreed improvement action plan. This unit introduces such planning process and advance the plan while deepening communications, manage project progress and achieve intended project goals. It emphasizes on education and guidance to all concerned in the improvement project. It also discusses site revitalization cycle, PDCA cycle and visualization. Towards the end, it highlights the importance of presenting both success and failure stories. It also provides guidelines for the company's own evaluation, establishment and horizontal deployment.

Exercise: Education for change

Exercise: Horizontal deployment plan

MODULE 3: WAREHOUSE KAIZEN WORKBOOK

“Learning by doing” is an effective approach to develop analytical and critical thinking abilities. This module aims to synthesize learnings in module 1 and 2 through various exercises. At the end of the module, participants will be able to

- Grasp the “before” situation, develop “after” state image
- Apply analytical methods and prioritize action plan
- Select warehouse kaizen suitable for horizontal deployment

SAMPLE EXERCISE 1



Observe the above image inside a warehouse that stocks various types of wood and construction material. Complete the table below:

Problem / Issue	Negative impact of the problem

SAMPLE EXERCISE 2

This is a six floor multi commodity cold storage storing three key agri commodities for distribution in a city. All major traders utilize this cold storage throughout the year. The illustration depicts item picking and loading process for a given customer order.

1. Develop a flow chart using the below template

Area	Flow chart	Problem / Issue
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Area A	 <p data-bbox="464 1089 682 1120">Truck placement</p>	 <p data-bbox="905 1089 1207 1120">Truck ready for loading</p>	 <p data-bbox="1375 1089 1745 1120">Dock for loading / unloading</p>
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<p>Area B</p>	 <p>Dock leveler for unloading</p>	 <p>Entry to cold storage</p>	 <p>Lift to move material (6 floors)</p>
<p>Area C</p>	 <p>Stair case to reach each floor</p>	 <p>Entrance to storage chamber</p>	 <p>Passage to second chamber</p>

Area D	 <p>Location numbers</p>	 <p>Lighting in storage area</p>	 <p>Pathway to transfer bags into lift</p>
	 <p>Picking from storage area</p>	 <p>Lifting</p>	 <p>Carrying through cold storage exit door</p>

Area A



Loading truck



Return to pick next bag



Loaded truck ready for inspection