

## Creating Lean Processes in Disaster Depots

Cumhur ÖZKAPTAN<sup>1\*</sup>, Celal ÖZKALE<sup>1</sup>

<sup>1</sup> Institute of Science, Kocaeli University, Turkey

\*Corresponding author: cumhur.ozkaptan@gmail.com

<sup>†</sup>Speaker: cumhur.ozkaptan@gmail.com

Presentation/Paper Type: Oral / Abstract

**Abstract-** AFAD Logistics warehouses, stocked by the Red Crescent in Turkey in diameter will be needed after a possible earthquake in Istanbul on the amount of temporary sheltering units were established considering the amount of material inside the tent and the tent. It is planned to establish with the highest value 27 that all the ills are weighted and ranked according to the following criteria in order to give priority to the places where Kızılay stores are not available or where their stocks can not meet the need for temporary shelter to be constructed around the province and its surroundings.

- Activity (Earthquake) and Population under Risk Situation
- Costs (Transportation costs)
- Infrastructure (Electricity, Water, Sewerage, Telecommunication systems.
- Transportation network (proximity to land, sea and air transportation)
- The market (The speed of the delivery time of goods to the victims)
- It is used in ground selection, site suitability, flood, landslide and earthquake risk in micro level.

Within the context of AFAD Logistics Depot Operation service, 25 logistic warehouses that actively serve are operated by private sector firm.

The contractor's most complaints are the failure to make the first material out of the warehouse within 1 hour and the penalties paid for it as stated in the contract.

The main aim of the study is to create standard and developable processes in Afet Logistics Depots. When this goal was achieved, the processes were examined in detail and developed according to the current situation. In this context, RFID and similar technological elements in logistics warehouses are provided to assist operators in realizing processes faster.

While this aim is being realized; process simplification and standardization principles known as lean production in the literature have been used. The methods used are; value stream mapping, removal of wastes, standardized operations and flow concept. Three of the standardized work documents found in the literature were selected and was applied to the warehouses. These documents are;

1. The standardized work schedule shows the operator's movement and the material position according to the machine and the general operation order. It should show the timing, the working sequence and the standard WIP.
2. The standardized run-of-operation table shows the combination of manual run time, walking time, and machine run time for each operation on a production line. It can be very useful to identify waste of standby and overload and to verify the stowing between transactions.
3. The job instruction sheet is used to train new operations. It lists the phases of the job by detailing a subtle distinction that may be needed to do the job with the best quality and efficiency. It may also be beneficial for experienced operators to confirm the correct operation again.

As a result of the study, the standard transaction processes for Disaster Logistics Warehouse were removed and a process cooperation was provided between 25 different warehouses. In addition, process improvement, which is the main aim of the study, has been provided.

*Keywords-* product family, standardized works, RFID