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Pull System using Kanban

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Abstract – *Push System was firstly used long back. The push system of catalogue control involves forecasting inventory needs to meet customer demand. Companies must foresee which products customers will acquisition along with determining what quantity of goods will be procured. The company will in turn invest enough product to meet the forecast demand and sell, or push, the goods to the purchaser.*

As there are many downsides in this push systems which is gonna explained later on is going to be overcome using pull system.

Key Words: push system, pull system, inventories, procured, acquisition.

1. INTRODUCTION

The major drawbacks of push system are that estimates are often inaccurate as sales can be unpredictable and vary from one year to the next. Another problem with push inventory control systems is that the product is being manufactured in a bulk and then discarded. This increases the company's costs for storing these goods.

The advantage and the benefit to the push system is that the company is equally secure it will have enough product on hand to complete customer orders, thwarting the incapability to meet customer demand for the product. Our project deals with all category of this problem. There was an elementary problem raised that in pharmaceutical companies as push system was used there was a lot of wastage of the resources which is a major loss for this field as the pharmacy could not adapt this thing Thereby, pull system needs to be proposed in this field. A brief idea of the pull system is that pull system is being done as per the user's requirement. Firstly, the user requests for the particular medicines and then the production is being done. Our software implements such things and pull system using Kanban is implemented.

1.1Pull System

The pull inventory control system begins with a customer's order or the request of the customer needs to be followed. With this approach, companies only make enough product to accomplish customer's orders. One pro-plus to the system is that there will be no additional of inventory that needs to be stored, thus falling inventory levels and the charge of resonant and loading goods. The figure represents the usage of pull system.

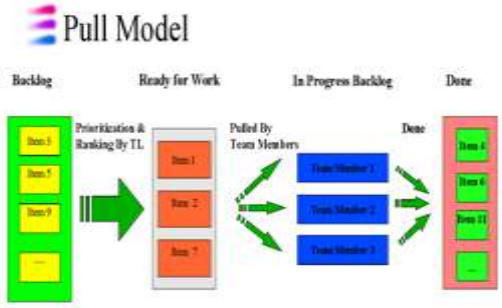

Fig: Pull System

1.2 Kanban System

The Kanban System has the following steps that needs to be followed which is really important and as follows:

1. Each process issues requests to its suppliers when it consumes its supplies which means request is being sent.
2. Each method produces according to the quantity and categorization of incoming requests.
3. No items are completed or elated without a request.
4. The request allied with an item is always committed to it.
5. Processes must not refer out faulty items, to ensure that finished products will be defect-free.
6. Preventing or not excessing the number of incomplete requirements makes the process more penetrating and reveals inefficiencies.

The figure shows the basic Kanban system.

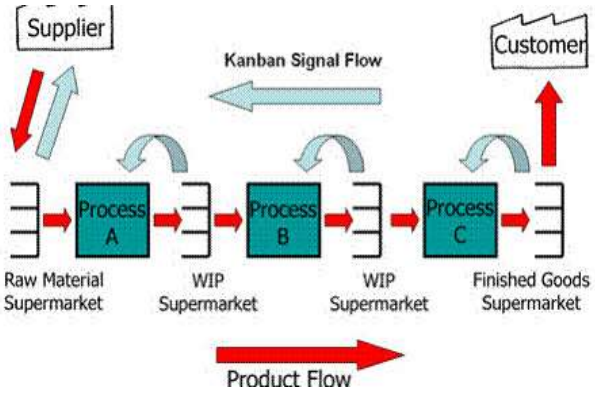

Fig: Kanban System

2. WORKING

So basically, as the project is for the pharmaceutical companies, so in this project work in different steps like first the medicine is being categorized in tablet form, in liquid form and in injection. Then they list out the tasks that needs to be done based on the categories of the medicine.

Then the process that needs to be done such as granulation, compression, mixing, drying, wetting and so on. Then when the customer requests for the list of medicines, then the process starts and it categorized whether it's dry or wet or so on. Then the further tasks are done as to do, in progress or the project is done. Then with the help of the software using different permutations and combinations the calculation is being taken off.

The calculation is required in the software because the machines and the person to whom the work is assigned has a certain breakpoint so the scheming is required to understand that the software calculates all the machine's time as well as the human based on the requirement. All these steps are done manually.

The admin first logins to the software, then as the work is being assigned to the people and the machine on that basis the task is being done. Then as one of the tasks is completed the task moves to the next procedure. For instance, if the task is in to do then when that task is completed then it moves to the in progress and so on. You can even add the main task and the sub-tasks as well. And when the process moves to the final stage then on that basis only the product is being manufactured thus the wastage of the medicines are saved.

The figure also represents on how the calculation being done

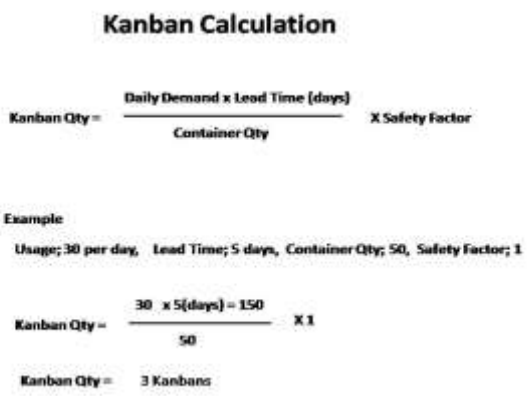

Fig: Kanban Calculation

This will also tell you whether the project that you've designed is working with the deadline that's been given, or delayed or is done before hand. And it will also display the remaining time. The figure represents the draft of the Kanban system.

Fig: Structure of Kanban System

3. CONCLUSIONS

The Kanban System is really useful in the pharmaceutical companies. It reduces the cost and our software works in an efficient way where each and every product is deployed and needs to be taken care off so that the customer's requirements is being fulfilled and resources are saved. Kanban system is used on an enormous stage.

REFERENCES

[1] https://www.google.com/systems-push-systems-kanban-just-in-time-jit.

[2] https://www.google.com/production-system.html.

[3] https://www.graphicproducts.com/articles/pull-system/.

[4] https://en.wikipedia.org/wiki/Kanban.

[5] https://tablet%20presentation_files/tablet%20presentation.html.

[6] http://leanmanufacturingtools.org/kanban/

[7] https://en.wikipedia.org/wiki/Push%E2%80%93pull_strategy

[8] https://kanbanize.com/lean-management/pull/what-is-pull-system/

[9] https://www.digite.com/kanban/what-is-kanban/

[10] https://www.allaboutlean.com/different-ways-to-pull-system-1/

[11] https://www.web4industry.com/electronic-kanban-board/

[12] https://cerasis.com/what-is-push-pull system/