



Singapore Healthcare Management 2023

Digitalization Of Receiving Documents

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Background

Over the years, our receiving transaction posting for non-stock and stock items has increased significantly. As a result, a lot of hardcopy documents are generated and this require filing on a daily basis.

In order to drive sustainability on saving natural resources, we reviewed and streamlined our work processes to meet the sustainability initiative without creating additional workload to the existing manpower.

Our initiative is to digitalize our receiving documents rather than printing out transaction documents and attaching to vendor delivery documents for filing.

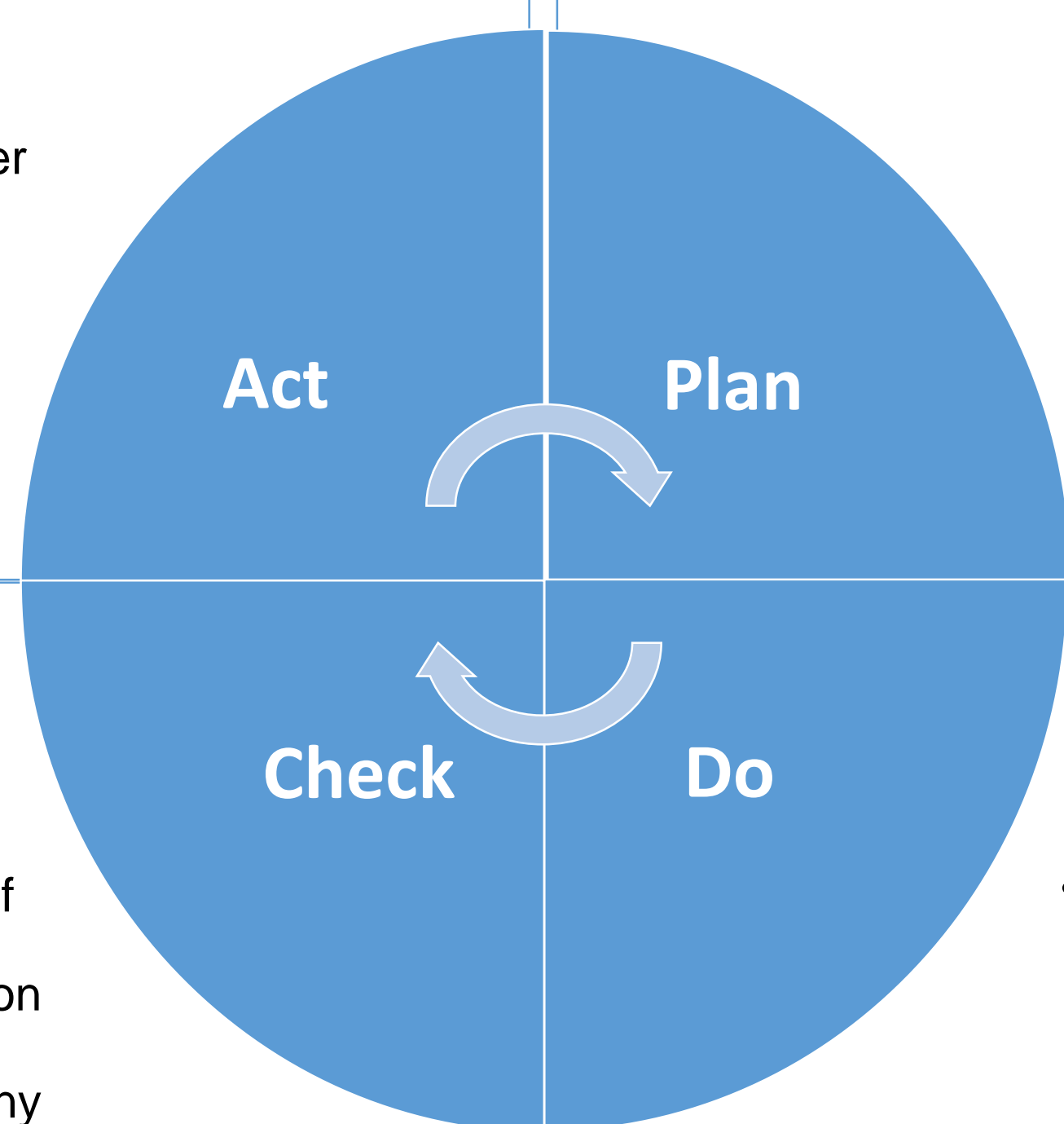
Objectives

- To reduce turn-around time in retrieving documents when auditor or hospital users request for delivery / receipt acceptance document.
- To reduce on storage, transport and handling cost related to storage of physical hard copy documents in external third party (3PL) warehouse.
- To improve environmental sustainability by reducing paper usage.
- To integrate the above improved work processes as part of Business Continuity Plan (BCP) for seamless retrieval of digitalized documents.

Methodology

The methodology that we are using is PDCA (Plan Do Check Act) so that we are constantly looking for ways to continually improve our work processes.

- Based on the results and checks conducted, the objectives for the new process workflow were met.
- The work efficiency was improved through the reduction of filing activity and easier retrieval of documents in the system.
- There are significant projected savings over 5 years in terms of storage and paper usage.



- Time study was conducted to check for improvement in work productivity. Usage of paper was also monitored to track the number of papers used after implementation of new process.
- Review of the workflow was checked for any work activities which require further improvements.

- Discussion on the current process was conducted within MMD receiving team and put into a process workflow.
- The team analyzed the workflow and pointed out the redundant and inefficient processes, which included labour-intensive retrieval and filing of documents as well as huge usage of paper.
- The new process workflow was designed and reviewed thoroughly by receiving team to ensure that all potential issues were identified.

- For successful implementation, the team ensured that secured HDDs were purchased and ready for use. The team were properly briefed of the whole process and standardized naming conventions of folders/files .
- The new process was implemented whereby the staff scans all DO/Tax invoices to kept in the shared folder. The information are transferred to 2 secured HDDs on the first working day of the next month.
- In the initial phase (2 months), the new workflow was reviewed on a weekly basis to ensure that the team were processing the documents correctly. Subsequently, checks would be conducted on a quarterly basis.

Results

PDCA helped us to control and practice continual improvement of our processes. With the aid of technology and manpower training, current intensive manpower activities are being replaced in the new process.

Factor to measure	Existing Process	New Process
Storage cost for pallets stored in 3PL related to documents storage	20 pallets (based on 5-year document retention) x \$18 per pallet per month x 12 months Year 1 = \$864 Year 2 = \$1,728 Year 3 = \$2,592 Year 4 = \$3,456 Year 5 = \$4,320	Zero storage cost. All documents are saved in shared folder or secured hard disk. 2TB Secured Hard Drive x 2 units x \$332 per unit = \$664
Manpower Charges for stacking the Document on pallet and disposal	Handling Charges for 8 pallets (4 pallets from 3PL to send back to SGH and 4 pallets from SGH to external warehouse for storage) x 2 trips = \$48	
Transport charges	Transport for above retrievals x 2 trips = \$340.	
Number of paper used on an annual basis (in cartons)	31 cartons of paper (consist of 2500 pieces per carton) x \$17 per carton = \$527	Estimated 2 cartons of paper to be used for ad-hoc basis x \$17 per carton = \$34
Copy Charges	77,500 pieces of paper x \$0.007 = \$5,425	5,000 pieces of paper x \$0.007 = \$35
Total Annual Cost	Year 1 = \$7,204 Year 2 = \$8,068 Year 3 = \$8,932 Year 4 = \$9,796 Year 5 = \$10,660	Year 1 = \$733 Year 2 = \$69 Year 3 = \$69 Year 4 = \$69 Year 5 = \$69

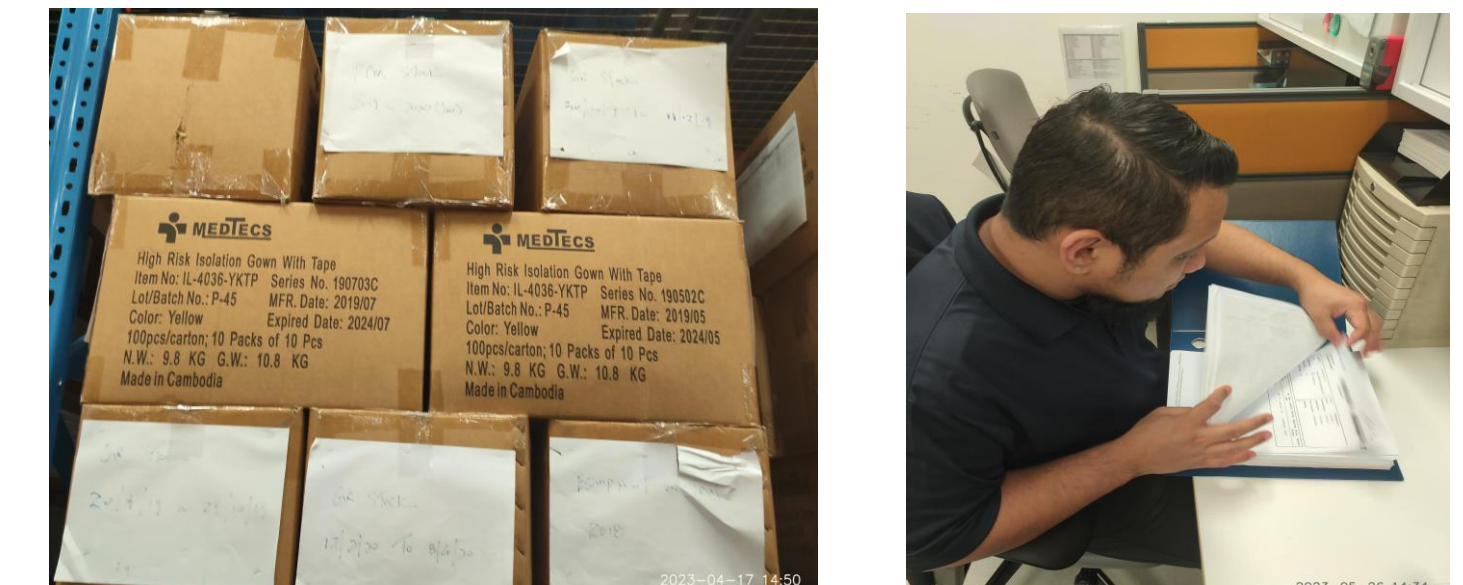
Savings Achieved (for 5 years)
= \$43,651
(average of \$8,730.20/year)



Conclusion

With this improvement initiative, we see significant savings on an annual basis and in the long term. This also drives sustainability in the department and creates more opportunities to review existing processes for improvement.

BEFORE:
storage space required for documents and labour-intensive for filing & retrieval



AFTER:
no storage space required and using technology for filing & easy retrieval

