

VALUE STREAM MAPPING FOR EMPLOYEE RE-IMBURSEMENT PROCESS OF AN ENTERPRISE

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Abstract

Every organization is striving hard on getting more work done in less time and with greater ease. The organizations have been working continuously to improve their cycle time by minimizing the wastes within the system and maximizing their flow. It not only provides them with the improved quality at a reasonable price but also leads to the customer satisfaction by providing the right product/service at the right time. Value Stream Mapping (VSM) is a paper and pencil tool that helps one to see and understand the flow of material and information as a product or service makes its way through the value stream. The main objective of Value Stream Mapping is to understand the ways to lean the processes and systems. VSM is a lean tool that helps in establishing the current state of a process and helps in revealing opportunities for improvements in the process. The aim of this paper is to represent the current state of a re-imburement process and it's lean afterwards. The Employee Reimbursement Process for a telephonic company as an enterprise has been selected as the case study. The objective is to identify and eliminate waste which can be any activity that is not adding value to the system. At the end, the improved model for the re-imburement has also been addressed.

Keywords: Value Stream Mapping, lean, employee reimbursement process, waste.

1. Introduction

Lean principles originated with objectives of reducing waste, decreasing inventory and operating costs, improving product quality, increasing productivity, and ensuring job satisfaction [1]. Value Stream Mapping (VSM) is a lean tool which assists establishing the current state of a process while aiding to uncover opportunities for improvement. The value stream mapping process could be divided into four steps: 1) identify a product or service family, 2) create current value stream to determine the current problem from the standpoint of the organization and customer, 3) create the ideal future state map, 4) identify corrective actions needed to close the gap between the current state and the ideal future state, 5) implement the corrective actions, 6) create a new current state map to verify if problems identified in step 2 have been eliminated/mitigated. Importance of keenly vested cross-functional team work is indispensable to success of VSM process [2].

Value stream maps which are drawn with a paper and pencil are originally called "material and information flow maps" presented as one-page diagrams depicting the process used to make a product [3]. Not only the material flows are mapped, but also information flows that control these material flows are also examined.

2. Methodology

An element of lean is assessing operations and processes that add to the cost or time rather than the value. In this study, each step involved in the re-imburement process is examined to determine if it adds value to the service. If it is not adding value to the service, it is pointed out and is subjected to improvement.

3. Employee Re-imburement Process

In this process if any employee of the company spends money from his own pocket to keep the daily functions of the company running smooth or if he purchases anything for the sake of the company, he has to go through this process afterwards to get him paid back by the company. In broader aspect, employee makes his claims directly to Admin Department. The case first complete its long cycle within administration department and then after having approved, is then sent to Finance department where the case is approved after set duration of the time and employee gets paid his money. In this process of re-imburement, employee has to face two departments: Admin and Finance. The macro view of the process is as follows:



Figure 1: Macro view of Employee Re-imburement process

3.1. Macro view of the process

In a situation where employee spend money from his own pocket on behalf of organization or to any function running, he prepares a case for payment and send to the Admin department for approval. After having approved from the Admin department, the case is then sends to the Finance department for necessary actions and makes payment to the employee. About a month is taken in Admin department to process the case and later finance department takes one whole week to make the payments.

3.2. Micro view of the Admin Department

In micro view, the step by step activities of each department are addressed. The step wise activities of the Admin department are discussed in the following table:

Table 1: Micro view of Admin Department

#	Activities	Time frame in days
1	GM Maintenance receives the case including receipts and explanatory note. He marks the file and sends to the Director Maintenance.	2
2	Director Maintenance checks and marks the case and sends to the manager	2
3	Manager checks the case thoroughly, makes some inputs on his end and sends to the Assistant Manager Branch	3
4	AM Branch checks the case in depth by checking the purchased items physically, last replacements / dues etc.	2
5	If the expenditure is within limits then the case is sends to the Manager Maintenance for processing	1
6	If the expenditure is not within limits then the case is sends to the Manager ER for processing. Manager ER discusses the case with Finance department and recommends the case to Manager Maintenance for processing.	3
7	Manager Maintenance then sends the case to Director Maintenance, who further on sends the case to GM Maintenance	3
8	GM Maintenance recommends and sends the case for approval to EVP Admin.	2
9	EVP Admin approves / signs the case and sends it to the GM Maintenance again for signatures.	6
10	GM Maintenance put his final signs and sends the case to the Director Maintenance.	1
11	Director Maintenance signs the case and sends to the Manager ER.	1
12	Manager ER sends the case to the Assistance Manager who further sends the case to the Assistant Branch.	1
13	Assistant Branch prepares the sanction memo for the case and sends it to the Assistant Manager ER who later on sends to the Manager ER for signature on sanction.	4
14	Manager ER sends the case to the Finance Department and inform employee	1
	Total	32

3.3. Value Stream Mapping of the Admin Department

The Value Stream Mapping of the Admin Department is presented below:

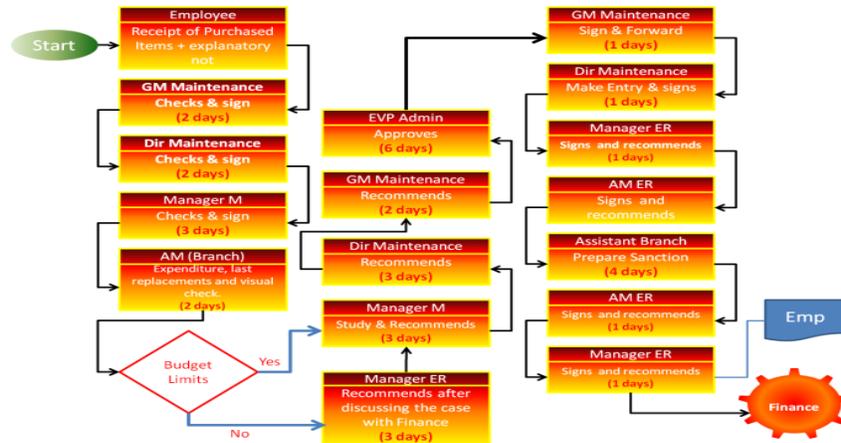


Figure 2: Value Stream Mapping of Admin Department

3.4. Micro view of the Finance Department

In micro view, the step by step activities of each department are addressed. The step wise activities of the Finance department are discussed below:

Table 2: Micro view of Finance Department

#	Activities	Time Frame In days
1	Director Budget receives and mark the case, and sends to the Manager budget for further processing	1
2	Manager Budget receives the case and checks the details of the case and sends to the Account Officer	1
3	Account Officer prepares the case at his end for payment to employee.	2
4	If the claim is within limits then the case is forwarded to the Director Budget, if it is not within the limits then the case is send to the higher authorities for approval (which is another long process)	1
5	Director Budget approves the case and case is send to the cash branch that pay the employee in cash or by cheque.	2
	Total	7

3.5. Value Stream Mapping of the Finance Department

The Value Stream Mapping of the Finance Department is presented below:

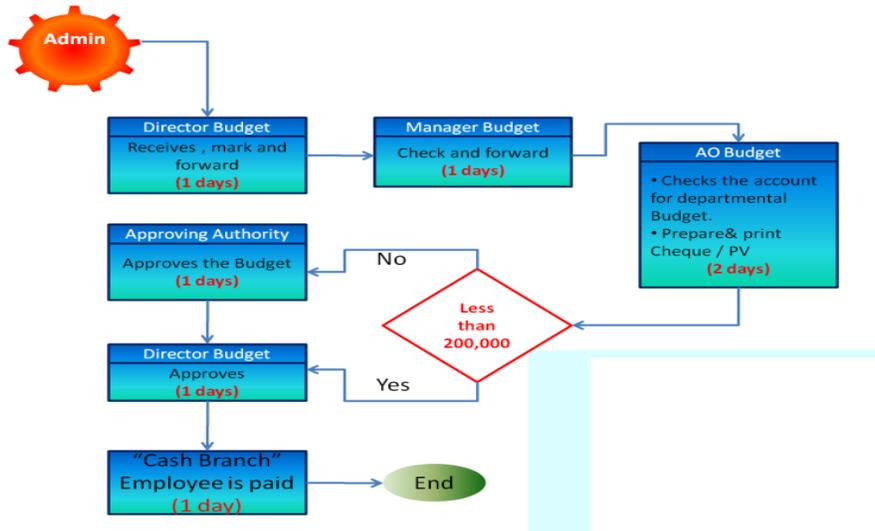


Figure 3: Value Stream Mapping of Finance Department

4. Implementation of Lean and the Corresponding Improvements in the Existing Process

Time is the key factor that service sector has to satisfy the internal and external customer's needs and demands. If that is not in limit, then it is believed that service is not good. To improve the system and services, there are certain tools for continual improvement. We have focused on Kaizen, the Japanese technique for continual improvement and have implemented this tool in this particular enterprise.

The employees don't carry out their responsibilities on time and is the point of focus. The main thing is to change the mental model of the employees in general. The following three factors play vital role in bringing the change if organization wants to improve their current practices.

- Psychology
- Personal Discipline
- Improved Morals

The model for continual improvement is presented in the figure below.



Figure 4: Improvement Technique Model

4.1. Improvement in the Admin Department

The non added value activities have been removed from the process and the time for each activity within the department has also been improved. The improvement in the activities is presented in the table below:

Table 3: Improvement in the Admin Department

#	Activities	Time frame in days
1	Employee sends his claims directly to the AM Branch of Admin Wing	
2	AM Branch checks the case in depth by checking the purchased items physically, last replacements / dues etc.	1 Day
3	If the expenditure is within limits then the case is sends to the Manager Maintenance for processing	Same day
4	If the expenditure is not within limits then the case is sends to the Manager ER for processing. Manager ER discusses the case with Finance department and recommends the case to Manager Maintenance for processing.	3
5	Manager Maintenance then sends the case to Director Maintenance, who further on sends the case to GM Maintenance	Same day
6	GM Maintenance recommends and sends the case for approval to EVP Admin.	1
7	EVP Admin approves / signs the case and sends it to the GM Maintenance again for signatures.	2
8	Director Maintenance signs the case and sends to the Manager ER.	Same day
9	Manager prepares the sanction and sends the case to Finance Department and informs employee	1
	Total	8

4.1.1. Value Stream Mapping of the Admin Department after Improvement

The Value Stream Mapping of the Admin Department after improvement is discussed below:

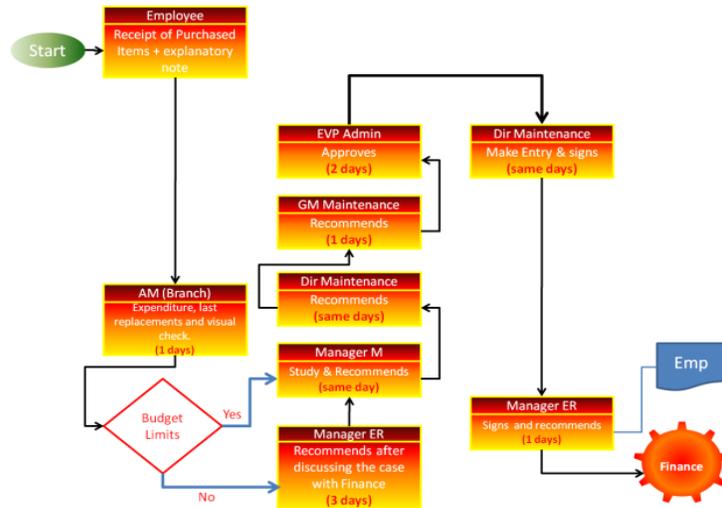


Figure 5: Value Stream Mapping of the Admin Department after Improvement

4.2. Improvement in the Finance Department

The improvement in the activities in the finance department is discussed here as below:

Table 4: Improvement in the Finance Department

#	Activities	Time Frame In days
1	Director Budget receives and mark the case, and sends to the Manager budget for further processing	1
2	Manager Budget receives the case and checks the details of the case and sends to the Account Officer	1
3	Account Officer prepares the case at his end for payment to employee.	1
4	If the claim is within limits then the case is forwarded to the Director Budget, if it is not within the limits then the case is send to the higher authorities for approval (which is another long process)	1
5	Director Budget approves the case and case is send to the cash branch that pay the employee in cash or by cheque.	Same day
	Total	4

4.2.1. Value Stream Mapping of the Finance Department after Improvement

The Value Stream Mapping of the Finance Department after improvement is discussed below:

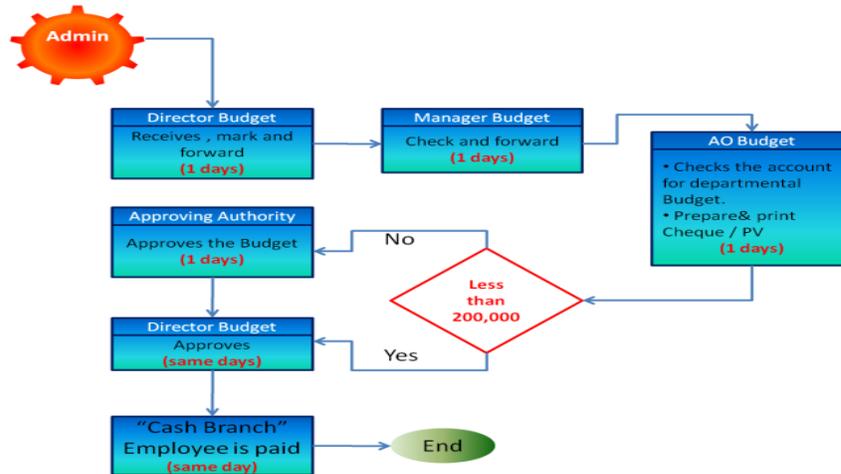


Figure 6: Value Stream Mapping of the Finance Department after Improvement

5. Discussion and Conclusion

The Value Stream Mapping has reveals the inefficiencies that are hidden in a value stream along with providing a future plan showing directions on how to improve the system.

We see from the VSM that only time is the key factor that service sector has to work on to make the process streamline. It not only satisfies the needs of the internal and external customers, but also brings uniformity in the enterprise by making the employees realize their job responsibilities. It not only improves the morale of the employees but also brings in the discipline within the enterprise.

References

- [1] Womack, J.P., Jones, D.T, and Roos, D. (1990). *The machine that changed the world: The story of Lean Production.*
- [2] Preetinder Singh Gill. (2012). *Application of Value Stream Mapping to Eliminate Waste in an Emergency Room*
- [3] Womack, J.P, and Jones, D.T. (2003). *Lean Thinking: Banish waste and create wealth in your corporation.*
- [4] Goldratt, E.M. (2004). *The goal: a process of ongoing improvement.*
- [5] Green, L. (2004). *Implementation of Lean Manufacturing in a small sized company.*
- [6] Muhammad Abdus Samad, MD. SaifulAlam and Nishat Tusnim. (2013). *Value Stream Mapping to reduce Manufacturing Lead Time in a semi-automated factory.*
- [7] Thais da C.L. Alves, Iris D. Tommelein, and Glenn Ballard. (2005). *Value Stream Mapping for Make-to-order products in a Job Shop environment.*
- [8] Fontanini, P.S. and Picchi, F.A. (2004). *Value Stream Macro Mapping – A case study of Aluminium windows for construction supply chain.*

- [9] Carreira, B. (2005). *Lean manufacturing that works: Powerful tools for dramatically reducing waste and maximizing profits.*
- [10] Santos, J. Wysk, A.R and Torres, M.J. (2006). *Improving production with lean thinking.*
- Petter Solding and Per Gullander. (2009). *Concepts for Simulation based Value Stream Mapping*