A VALUE STREAM MAPPING ANALYSIS OF LAEM CHABANG PORT'S SERVICES FOR AUTOMOTIVE AND AUTO-COMPONENTS

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Abstract

The purpose of this study was to investigate the management and operation of Laem Chabang Port's service for automotive and auto-component, and to find the ways to improve their services. Using the value stream mapping analysis, the results showed that there are 14 specified activities for Laem Chabang Port's service operation. And their activities need to be performed in accordance with the customer operation. The process period is based on customer's operation and document entry and exit. In general it will take around 3 days for all activities. The reduction in waste and costly activities will help to improve the port management system.

Keywords: Value Stream Mapping, Laem Chabang Port, Automotive and Auto-components

Methodology

This study used mixed method analysis: qualitative and quantitative.

Data Collection
Primary data. The data are collected from a Key Person of Laem Chabang Port by using the in-depth interviews ,which semi-structured question.

Secondary data. The data are collected from Laem Chabang Port of journals, books, articles, thesis and publications of government, agencies and the private sector

Value Stream Mapping
The value stream mapping is used to analysis efficiency improvement in Laem Chabang Port's operation.

Results

Most of the activities depended on the customers' operation. In general, port operations will start when they received the order from the customer, and checked them for accuracy. This step is often taken out of the program to analyze and verify accuracy. Moreover, it found that the problems are the delay of activities because of the interrupt in data processing as a result of the client's fault.

Figure 1 The current value stream mapping of Laem Chabang Port.

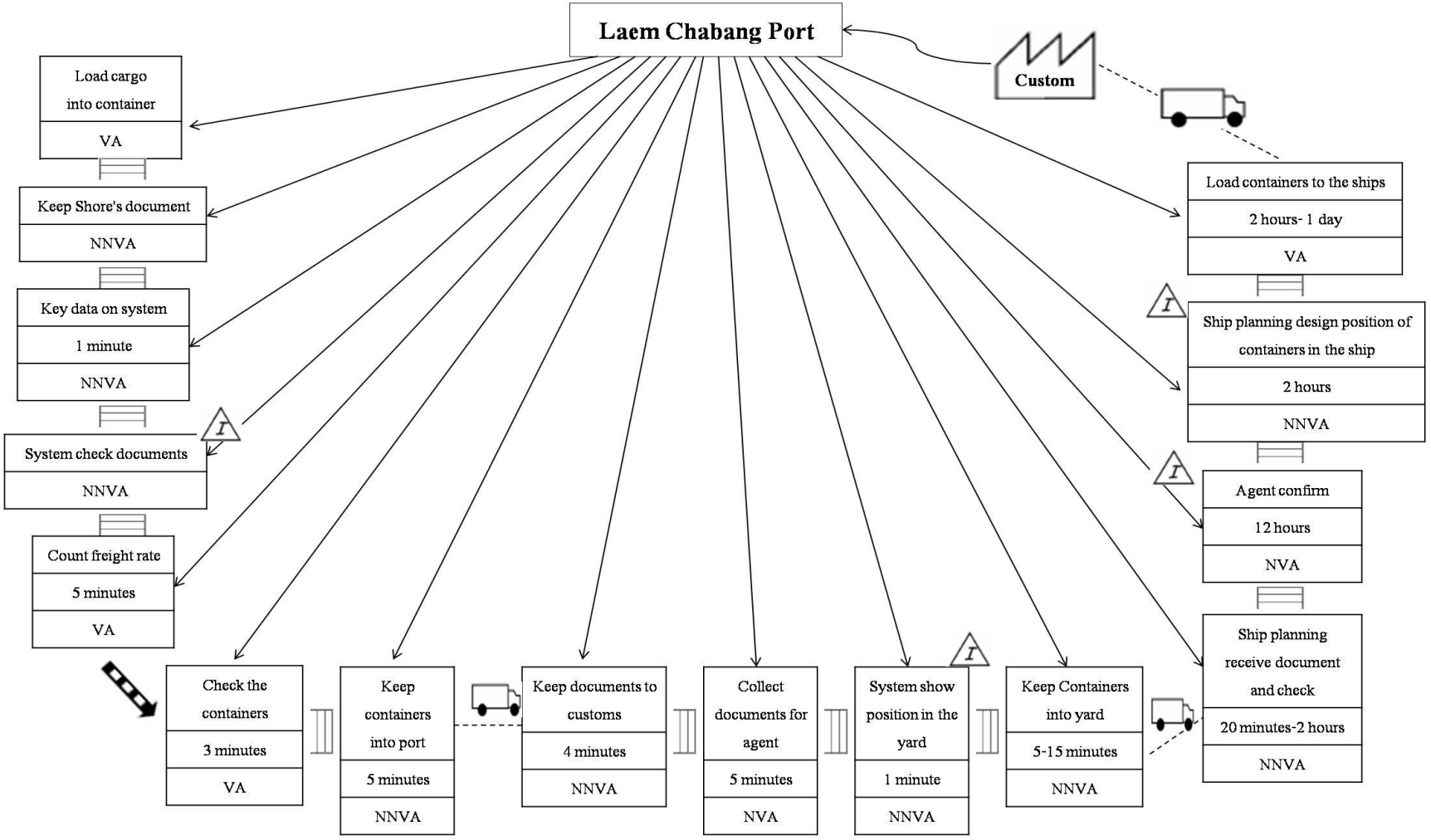

Figure 2 Value stream mapping of Laem Chabang Port after operation improvement.

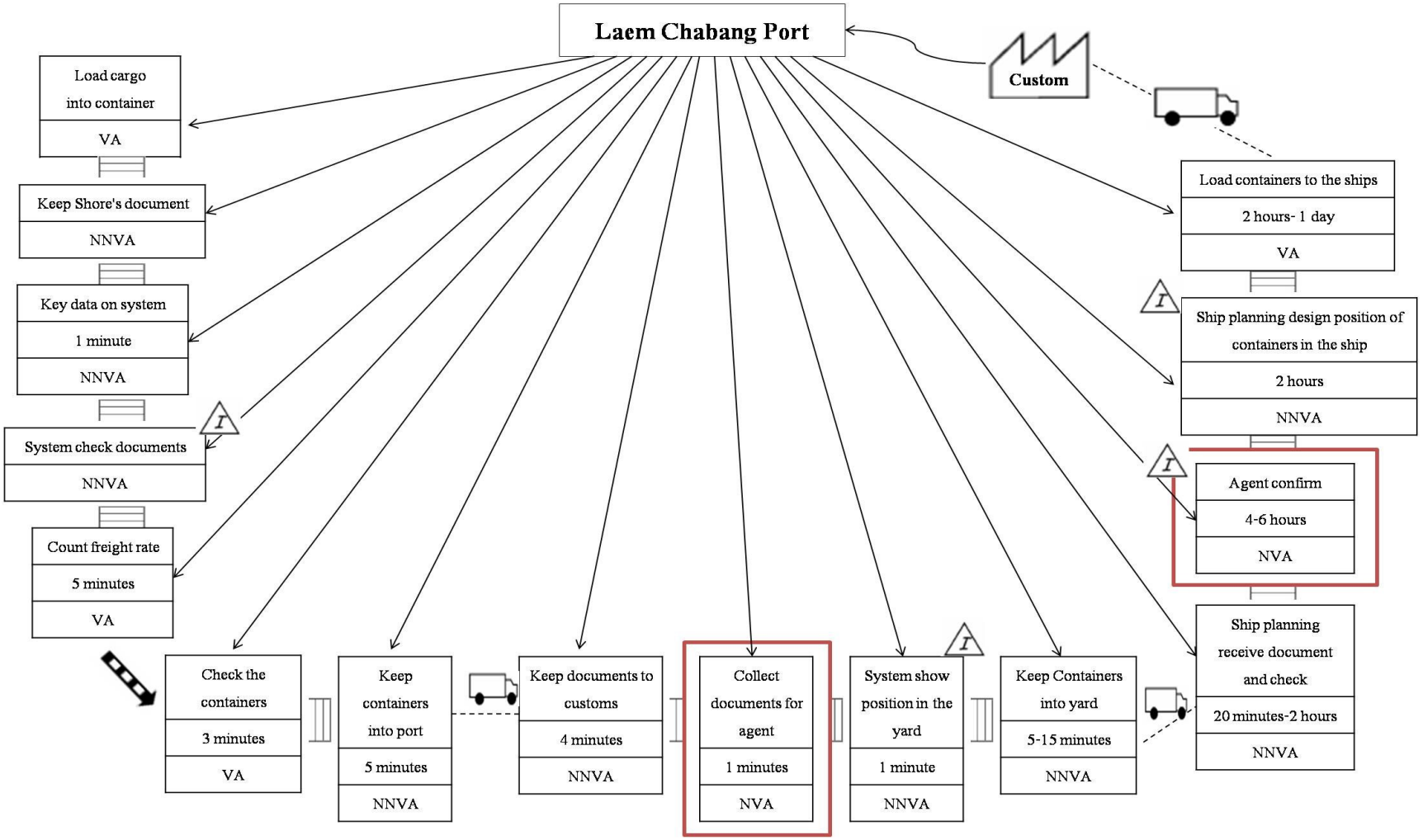

Table 1 A comparison between before and after Laem Chabang Port operation improvement.

Type	Activities	Time		
		Before	After	Change
Value Added (VA)	1.Load cargo into container	-	-	-
	2.Count freight rate	5 minutes	5 minutes	-
	3.Check the containers	3 minutes	3 minutes	-
	4.Load containers to the ships	2 hours- 1 day	2 hours- 1 day	-
Necessary but Non Value Added (NNVA)	1.Keep Shore's document	-	-	-
	2.Key data on system	1 minute	1 minute	-
	3.System check documents	-	-	-
	4.Keep containers into port	5 minutes	5 minutes	-
	5.Keep documents to customs	2 minutes	2 minutes	-
	6.System show position in the yard	1 minute	1 minute	-
	7.Keep Containers into yard	5-15 minutes	5-15 minutes	-
	8.Ship planning receive document and check	20 minutes-2 hours	20 minutes-2 hours	-
	9.Ship planning design position of containers in the ship	2 hours	2 hours	-
Non Value Added (NVA)	1.Collect documents for agent	5 minutes	1 minutes	4 minutes
	2.Agent confirm	12 hours	4-6 hours	6-8 hours

Discussion and Conclusion

In conclusion, most activities with time reduction are referred to non-value added activities: collect documents for agent, agent confirm.

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