IMPROVING LOADING AND UNLOADING PERFORMANCE AT PATIMBAN PORT CAR TERMINAL WITH A LEAN STRATEGY

Yanuar Ardiansyah[1] and Moses Laksono Singgih[1]

[1] Sepuluh Nopember Institute of Technology, Surabaya 60264, Indonesia
moseslsinggih@ie.its.ac.id

Abstract. Patimban Port located in Subang, West Java, has gained recognition as a National Strategic Project. Its operations, which commenced in December 2020, area primarily designed to optimize the Car Terminal's functionality. This terminal facilitates the loading and unloading of Completely Built Up (CBU) Vehicles, both domestically and internationally. The study objective was to assess the operational performance of Patimban Port Car Terminal. It aimed to determine the current duration of vehicle loading and unloading and devise strategies for enhancing and increasing Value Added (VA) activities while re- ducing Necessary but Non-Value Added (NNVA) and Non-Value Added (NVA) activities. This reduction for non-essential activities aimed to decrease loading and unloading time. Additionally, the study aimed to predict the vehicle loading and unloading time following improvements using the lean strategy approach. The proposed enhancements for domestic vehicle terminal services involve reducing NVA and NNVA activities from 1,333 seconds to 709 seconds. Concurently, VA activities would be reduced from 816 seconds to 546 seconds. This comprehensive approach would result in an overall service time reduction from 168 hours, 35 minutes, and 49 seconds to 72 hours, 20 minutes, and 55 seconds, equivalent to a reduction of approximately 42,91% from the previous time. Similar improvements are suggested for international car terminal services, to reduce NVA and NNA activities from 1,038 seconds to 688 seconds and VA activities from 816 seconds to 546 seconds. These enhancements would lead to an overall service time reduction from 168 hours, 30 minutes, and 49 seconds to 72 hours, 20 minutes, and 55 seconds, also representing a reduction of approximately 42,93% from the previous time

Keywords: Patimban Port, Domestic Car Terminal, International Car Terminal, Lean Strategy, Non-Value Added (NVA), Necessary but Non-Value Added (NNVA), Value Added (VA).

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1 Introduction

Patimban Port has limited operations starting in December 2021 which is optimized for the utilization of the Car Terminal which serves the loading and unloading activities of CBU vehicles both domestic and international. Vehicle cargo service activities from the ship to when it is transported via a car carrier, there are 3 activities carried out: stevedoring, cargodoring, and receiving/delivery.

The necessary measures for enhancing the loading and unloading efficiency at both the domestic and international car terminals Patimban Port involve understanding the intricacies of Non-Value Added (NVA) and Necessary Non-Value Added (NNVA) activities. This understanding allows for streamlined time management and the enhancement of Value Added (VA) activities. The goal of achieving heightened productivity during loading and unloading processes is pursued through a lean strategy that centers on recognizing and eradicating Non-Value Added and Necessary Non-Value Added tasks, amplifying Value Added tasks, eliminating wasteful action, and reducing time lags. This, in turn, enhances the overall productivity of vehicle loading and unloading activities at Patimban Port. The study's objective is to formulate a lean strategy utilizing the Value Stream Analysis Tools (VALSAT) approach. This approach is employed to determine the appropriate tools, identify existing types of waste, and provide recommendations for improvement.

2 Literature Review

Emerging in the early 1990s as an evolution of the Toyota Production System, lean manufacturing or production system is centered on the objective of diminishing the interval between customer orders and deliveries. This is achieved through the reduction of wasteful or non-value-added actions. The principles of lean philosophy remain pertinent even within the Industry 4.0 landscape, serving as a means to effectively manage various forms of waste [I]. The inception of lean manufacturing application was initially observed within the automotive sector, subsequently extending its influence to diverse fields such as textiles, construction, food production, medical services, electrical and electronic industries, ceramics, plywood, furniture, footwear, shell-related industries, as well as the realm of services [2]. Nonetheless, the literature indicates that the efficacy of lean adoption is evident in merely around two-thirds of enterprises successfully integrating lean principles into their production processes, and only a limited few can maintain this approach over an extended period [3]. The core of lean methodology lies in recognizing and eradicating activities devoid of value in design, production (in the context of manufacturing), or operations (of services), as well as within supply chain management, all of which directly impact customers [4].

Lean constitutes an ongoing endeavor to eradicate inefficiencies and enhance the creation of value-added offerings (both products and services), aiming to deliver value to customers. The foundation of the lean methodology primarily centers on the reduction and elimination of wasteful elements. Within this framework, seven distinct forms of waste (referred to as the seven wastes) have been identified:

1. Over Production
2. Defect (Reject)
3. Unnecessary Inventory Delay
4. Inappropriate Processing
5. Excessive Transportation
6. Waiting/Idle
7. Unnecessary Motion

Value Stream Mapping is utilized to pinpoint inefficiencies present in the manufacturing sector, with a specific emphasis on the production process [5]. Value Stream Mapping is an approach used to diagram the progression of the production process or service and the comprehensive movement of information required to generate a singular production service. This is not confined to individual workspaces, but encompasses the entirely of the production process, facilitating the identification of both Value-Added and Non-Value-Added activities [6]. In Value Stream Mapping (VSM), language or symbols are employed as a method to dissect the flow of materials and information within the production process. The central emphasis of VSM lies in the recognition and differentiation of Value Added and Non-Value Added-procedures [7].

VSM encompasses the mapping of both material and information flows. It illustrates the application of lean principles by delineating Value-Added phases within a value stream and concurrently removing Non-Value Added or wasteful stages. The practices of Value Stream Mapping is categorized into two distinct types:

1. The current state map represents the arrangement of a value stream, utilizing specific symbols and terminology to pinpoint inefficiencies, areas for enhancement, and opportunities for improvement.
2. The future state map outlines a plan for the anticipated transition toward lean practices in the future.

Value Stream Analysis Tools (VALSAT) is an approach by weighing waste and selecting the tools to use a matrix as shown in Table 1. There are 7 types of detailed mapping tools that are most commonly used, that is:

1. Process Activity Mapping (PAM)
2. Supply Chain Response (SCRM)
3. Production Variety Funnel (PVF)
4. Quality Filter Mapping (QFM)
5. Demand Amplification Mapping (DAM)
6. Decision Point Analysis (DPA)
7. Physical Structure (PS)

Table 1. Selection of VALSAT Tools.

Waste/ Structure	Mapping Tools						
	Process Activity Mapping	**Supply Chain Response Matrix**	**Production Variety Funnel**	**Quality Filter Mapping**	**Demand Amplification Mapping**	**Decision Point Analysis**	**Physical Structure**
Over Production	L	M		L	M	M	
Defect	L			H			
Unnecessary inventory delay	M	H	M		H	M	L
Inappropriate processing	H		M	L		L	
Excessive transportation	H						L
Waiting	H	H	L		M	M	
Unnecessary motion	H	L					

Source : Hines & Rich (1997) [8]

3 Method

The research focuses on the activities of receiving and loading vehicles at domestic and international vehicle terminals with research stages in the form of data collection, processing and analysis of research data, preparation of strategic plans, and preparation of conclusions and suggestions.

Data collection was carried out by collecting loading and unloading performance data, interviewing port operators and vehicle terminal service users, directing field observations, and distributing questionnaires to interested parties at vehicle terminals to find out the most dominant waste.

The stages of data processing and analysis begin by calculating loading and unloading performance and determining the tools to be used in the next stage using the VALSAT method, creating a Current State Map, and depicting the Service Value Stream. The final stage is to carry out an analysis using the selected tool from the selection using the VALSAT method.

In designing the strategy, the draft of the Future State Map is carried out by providing several suggestions for improving strategies to reduce waste and reduce service lead time

4 Results and Discussion

Since starting limited operations in December 2021 to December 2022, it can be seen that the productivity of vehicle loading and unloading at the domestic terminal is less

than the target of 100 CBU/H, while the productivity of loading and unloading of vehicles at the international terminal has exceeded the target of 100 CBU/H. The berth utilization/Berth Occupancy Ratio (BOR) performance at domestic and international terminals is below standard (70%). The yard utilization performance shown in the Yard Occupancy Ratio (YOR) is fluctuating but the average value exceeds the standard value (65%)

The process of servicing vehicle cargo at the domestic terminal and international terminal begins with the implementation of the booking stack, planning to receive until the vehicle cargo is on board. The questionnaire was carried out to identify waste of service by identifying 7 types of waste that generally appear, namely overproduction, defects, unnecessary inventory delays, inappropriate processing, excessive transportation, waiting, and unnecessary motion. The next step after collecting the questionnaires is to calculate the weight of each waste. Next, the selection of tools to be used later is carried out using the VALSAT method shown in Table 2 for domestic terminals and Table 3 for the international terminal

Table 2. Selection of Value Stream Analysis Tools in the Domestic Terminal.

No	Waste	Weight	Value Stream Mapping Detail						
			PAM	SCRM	PVF	QFM	DAM	DPA	PS
1	Over Production	4,0	4,0	12,0		4,0	12,0	12,0	
2	Defect	3,2	3.2			28,8			
3	Unnecessary inventory delay	3,5	10,5	31,5	10,5		31,5	10,5	3,5
4	Inappropriate processing	3,3	29,7		9,9	3,3		3,3	
5	Excessive transportation	3,7	33,3						3,7
6	Waiting	3,6	32,4	32,4	3,6		10,8	10,8	
7	Unnecessary motion	4,3	38,7	4,3					
TOTAL			**151,8**	**80,2**	**24,0**	**36,1**	**54,3**	**36,6**	**7,2**
RANK			**1**	**2**	**6**	**5**	**3**	**4**	**7**

Table 3. Selection of Value Stream Analysis Tools in the International Terminal.

No	Waste	Weight	Value Stream Mapping Detail						
			PAM	SCRM	PVF	QFM	DAM	DPA	PS
1	Over Production	2,7	2,7	8,1		2,7	8,1	8,1	
2	Defect	2,1	2,7			18,7			
3	Unnecessary inventory delay	2,0	6,0	18,0	6,0		18,0	6,0	2,0

No	Waste	Weight	Value Stream Mapping Detail						
			PAM	SCRM	PVF	QFM	DAM	DPA	PS
4	Inappropriate processing	3,1	27,9		9,3	3,1		3,1	
5	Excessive trans-portation	3,7	33,3						3,7
6	Waiting	3,4	30,6	30,6	3,4		10,2	10,2	
7	Unnecessary motion	2,9	26,1	2,9					
TOTAL			**128,7**	**59,6**	**18,7**	**24,7**	**36,3**	**27,4**	**5,7**
RANK			**1**	**2**	**6**	**5**	**3**	**4**	**7**

Based on the results of the VALSAT selection, the process chosen was Process Activity Mapping (PAM) with a weight of 143.0 for the domestic terminal and 122.3 for the international terminal, so the identification of Value Stream Mapping in this study used PAM.

An overview of the service process at the domestic terminal and international terminal consists of material flow, service processing time, and information flow. Making maps for each process category along the value stream in receiving and loading activities are depicted as a Current State Map at the domestic terminal in Fig 1 and at the international terminal in Fig. 2.

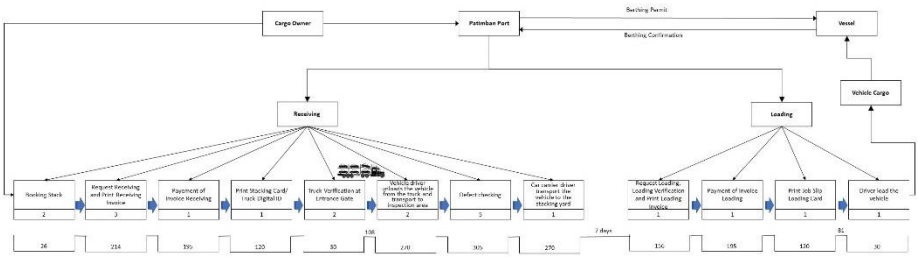

Fig. 1. Current State Map on Domestic Terminal.

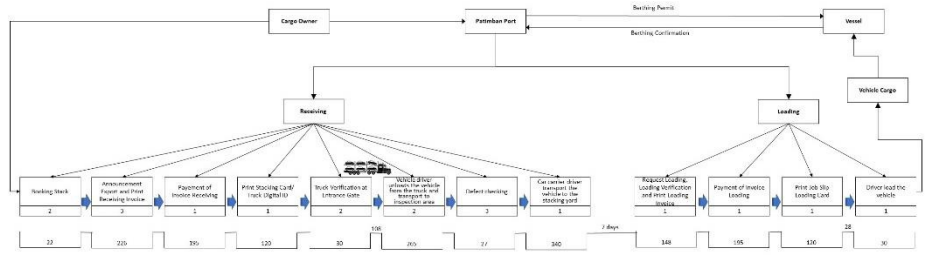

Fig. 2. Current State Map on International Terminal.

All activities in the service process are grouped by PAM into 5 activity groups, namely Operation (O), Transportation (T), Inspection (I), Delay (D), and Storage (S). Activity grouping is also carried out based on value-adding activity. and non-value-

adding activity. Table 4 is PAM identification on the domestic terminal and Table 5 is PAM identification on the international terminal

Table 4. Process Activity Mapping Identification on Domestic Terminal

No	Activity	Activity Type	Time (sec)	VA (sec)	NNVA (sec)	NVA (sec)
1	Booking Stack Process	O	26	26		
2	Request Receiving and Print Receiving Invoice	O	214	214		
3	Payment of Invoice Receiving	O	195	195		
4	Print Stacking Card/Truck Digital ID	O	120			120
5	Truck verification at Entrance Gate	I	30	30		
6	The truck headed to Inspection Area	T	137		137	
7	The vehicle driver unloads the vehicle from the truck and transports it to the inspection area	O	270		270	
8	Defect checking	I	305		305	
9	The car carrier driver transports the vehicle to the stacking yard	T	270		270	
10	Placement of vehicles in the stacking yard	S	7 hari			7 hari
11	Request Loading and Print Loading Invoice	O	156	156		
12	Payment of Invoice Loading	O	195	195		
13	Print Job Slip Loading Card	O	120			120
14	Driver transport vehicle from the stacking yard to the ship	T	81		81	
15	Driver loads the vehicle	O	30	30		
			2149	**816**	**1095**	**240**
				37,97%	**50,86%**	**11,17%**

Table 5. Process Activity Mapping Identification on International Terminal

No	Activity	Activity Type	Time (sec)	VA (sec)	NNVA (sec)	NVA (sec)
1	Booking Stack Process	O	22	22		
2	Announcement Export and Print Receiving Invoice	O	226	226		
3	Payment of Invoice Receiving	O	195	195		
4	Print Stacking Card/Truck Digital ID	O	120			120
5	Truck verification at Entrance Gate	I	30		30	
6	The truck headed to Inspection Area	T	108		108	
7	The vehicle driver unloads the vehicle from the truck and transports it to the inspection area	T	265		265	

No	Activity	Activity Type	Time (sec)	VA (sec)	NNVA (sec)	NVA (sec)
8	Defect checking	I	27		27	
9	The car carrier driver transports the vehicle to the stacking yard	T	340		340	
10	Placement of vehicles in the stacking yard	S	7 hari			7 hari
11	Request Loading and Print Loading Invoice	O	148	148		
12	Payment of Invoice Loading	O	195	195		
13	Print Job Slip Loading Card	O	120			120
14	Driver transport vehicle from the stacking yard to the ship	T	28		28	
15	Driver loads the vehicle	O	30	30		
			1854	**816**	**798**	**240**
				44,01%	**43,04%**	**12,94%**

Based on the identification results, NVA activities will be eliminated because they are considered to have no value. Also considered are improvement activities to minimize the time for NNVA activities by implementing better work methods, as well as the possibility of activities that are included in the VA category for time efficiency. PAM analysis was carried out using the 5W and 1H methods, namely at activity numbers 3, 4, 8, 9, 10, 12, 13, and 14 at the domestic terminal and at activity numbers 3, 4, 9, 10, 12 and 13 at the international terminal.

The biggest waste is waste in the form of storage in the form of the length of time the vehicle is placed in the yard for up to 7 days, due to the irregular delivery of vehicles from the factory. The waste in the form of storage is sought for the root cause of the problem with the 5 Why tool. The analysis concludes that the root of the problem is that there is a time limit for placing vehicle loads in the stacking yard and a fee will be charged after 6 days. so a new regulation is needed from the port operator to set a time limit for placing vehicle loads in the stacking yard to be charged after 3 days.

Proposed improvements to the future state map design for domestic terminals are eliminating invoice receiving and invoice loading activities, eliminating stacking card printing and job slip card printing activities, reducing the activity time of bringing vehicles to the stacking yard, reducing the activity time of bringing vehicles from the stockpiling yard to the ship as well as reducing vehicle storage time in the yard. The proposed improvements resulted in reduced service lead time from 2149 seconds to 1255 seconds. The time difference between the current state map and the future state map is 894 seconds, due to reduced time on VA activities from 816 seconds to 546 seconds, NNVA from 1093 seconds to 703 seconds, and NVA from 240 seconds to 0 seconds.

The waiting time for loading vehicles at the domestic terminal was reduced from 7 days (168 hours) to 3 days (72 hours). The total service time on the current state map is 168 hours 35 minutes 49 seconds and the efficiency results on the future state map are 72 hours 20 minutes 55 seconds. Then the time difference between the current state

map and the future state map is 96 hours 14 minutes 54 seconds. A comparison between the current state map and the future state map at domestic terminals can be seen in Table 6.

Table 6. Time Comparison of Current State Map and Future State Map at Domestic Terminal.

No	Activity	*Current State Map*			*Future State Map*		
		VA (sec)	**NNVA (sec)**	**NVA (sec)**	**VA (sec)**	**NNVA (sec)**	**NVA (sec)**
1	Booking Stack Process	26			26		
2	Request Receiving and Print Receiving Invoice	214			214		
3	Payment of Invoice Receiving	195			60		
4	Print Stacking Card/Truck Digital ID			120			0
5	Truck verification at Entrance Gate		30			30	
6	The truck headed to Inspection Area		137			137	
7	The vehicle driver unloads the vehicle from the truck and transports it to the inspection area		270			270	
8	Defect checking		305			60	
9	The car carrier driver transports the vehicle to the stacking yard		270			176	
10	Placement of vehicles in the stacking yard			7 hari			3 hari
11	Request Loading and Print Loading Invoice	156			156		
12	Payment of Invoice Loading	195			60		
13	Print Job Slip Loading Card			120			0
14	Driver transport vehicle from the stacking yard to the ship		81			36	
15	Driver loads the vehicle	30			30		
Total Time		**816**	**1093**	**240**	**546**	**709**	**0**
Percentage		**38,0 %**	**50,8 %**	**11,2 %**	**43,5 %**	**56,5 %**	**0,00 %**

Proposed improvements to the future state map design for international terminals are eliminating invoice receiving and invoice loading activities, eliminating stacking card printing and job slip card printing activities, reducing the activity time of bringing vehicles to the stacking yard and reducing vehicle storage time in the storage yard. The proposed improvements resulted in reduced service lead time from 1854 seconds to 1234 seconds. The time difference between the current state map and the future state map is 620 seconds, due to reduced time on VA activities from 816 seconds to 546

seconds, NNVA from 816 seconds to 546 seconds, and NVA from 240 seconds to 0 seconds.

The waiting time for loading vehicles at the international terminal was reduced from 7 days (168 hours) to 3 days (72 hours). The total service time on the current state map is 168 hours 30 minutes 54 seconds and the efficiency results on the future state map are 72 hours 20 minutes 34 seconds. Then the time difference between the current state map and the future state map is 96 hours 10 minutes 20 seconds. A comparison between the current state map and the future state map at international terminals can be seen in Table 7.

Table 7. Time Comparison of Current State Map and Future State Map at International Terminal.

No	Activity	*Current State Map*			*Future State Map*		
		VA (sec)	**NNVA (sec)**	**NVA (sec)**	**VA (sec)**	**NNVA (sec)**	**NVA (sec)**
1	Booking Stack Process	22			22		
2	*Announcement Export* and *Print Receiving Invoice*	226			226		
3	Payment of Invoice Receiving	195			60		
4	Print Stacking Card/Truck Digital ID			120			0
5	Truck verification at Entrance Gate		30			30	
6	The truck headed to Inspection Area		108			108	
7	The vehicle driver unloads the vehicle from the truck and transports it to the inspection area		265			265	
8	Defect checking		27			27	
9	The car carrier driver transports the vehicle to the stacking yard		340			230	
10	Placement of vehicles in the stacking yard			7 hari			3 hari
11	Request Loading and Print Loading Invoice	148			148		
12	Payment of Invoice Loading	195			60		
13	Print Job Slip Loading Card			120			0
14	Driver transport vehicle from the stacking yard to the ship		28			28	
15	Driver loads the vehicle	30			30		
Total Time		**816**	**798**	**240**	**546**	**688**	**0**
Percentage		**44,0%**	**43,1 %**	**12,9 %**	**44,2 %**	**55,8%**	**0,00 %**

The future state map is made as a design with several suggestions for improvement of activities which are not the result to reduce waste, but are part of continuous improvement. For the next improvement process, efforts are needed to re-map the new current state map process flow conditions, for further analysis and make improvement plans to obtain better conditions. The results of the future state map for international terminals can be seen in Figure 3 and for domestic terminals can be seen in Fig 4

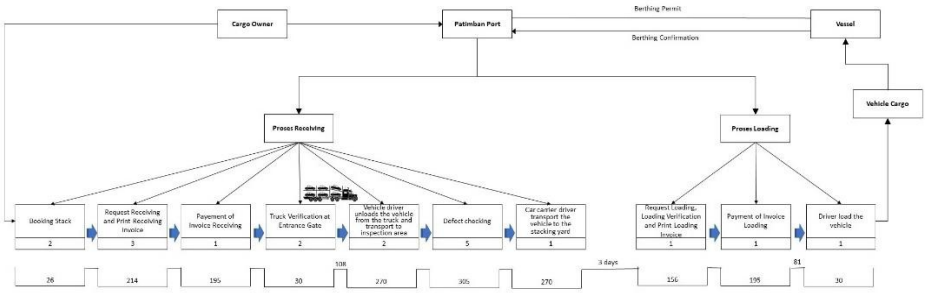

Fig 3. Future State Map on Domestic Terminal

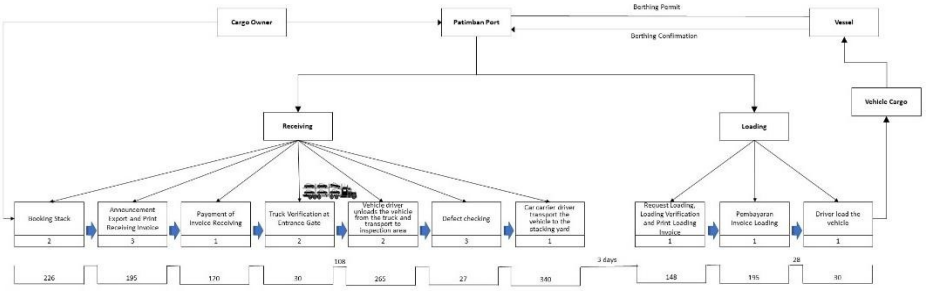

Fig 4. Future State Map on International Terminal.

The description of the activities carried out by the stakeholders from the terminal operator consists of 6 parties that become one, as part of the Logistics Service Provider, each of which has a role in coordinating the operation of the vehicle terminal, namely:

1. Shipping companies/agencies that play a role in the operational activities of sea transportation facilities
2. Forwarders acting as Authorized Owners of Goods.
3. PPJK (Customs Service Intermediary Company) which plays the role of administration of customs management formalities.
4. Transportation Company (Car Carrier) which acts as Land Transportation.
5. Loading and unloading company (PBM) which plays a role in carrying out loading and unloading activities
6. Original Cargo Owner who authorizes the Forwarder to carry out logistics activities for the delivery of goods.

All of these parties would be able to provide an understanding that to speed up the administrative formalities of document management as well as the formalities of the physical activities of vehicle movement in the description of these activities requires coordination among parties who carry out their core operational activities as Logistics Service Providers, which can create awareness to act immediately so that the process

accelerates and can be immediately followed up by the parties involved in the chain of the description of the next process activity. Coordination between parties is required to contribute output in the form of time acceleration and cost savings.

There is an action plan needed to make changes which in essence require sovereignty from the Port Regulator (Port Authority and Syahbandar as Port Operators). Terminal Operators are the only parties who undergo decisions set by Port Regulators so that port services can run sovereignly, and transparently and avoid aspects of privilege, the culture of Logistics Service Providers which has cartel tendencies formed by the parties within it; so that it has an impact on port service delays and high costs (high cost of logistics).

The positive impact of implementing port service sovereignty is being able to eliminate and make waste efficient in terms of time and costs caused by the indiscipline of each party carrying out operational activities. All service activities in receiving and loading activities are accompanied by evaluation and monitoring of port operational performance in the form of Waiting Time (WT), Approach Time (AT), Berthing Occupancy Ratio (BOR), Yard Occupancy Ratio (YOR), Car Shift per Hour (CSH), a comparison of Effective Time with Berthing Time (ET: BT) and Dwelling Time (DT) can eliminate all waste in Lean Management regarding time wastage, inefficient movement, and cost savings. Table 4.8 is a domino effect matrix table for each of the intended performance parameters

Table 8. Domino Effect Performance

No.	Performance	Category	Domino Effect	
			Parameter	**Impact**
1.	YOR < 65%	Good	Stacking Yard available	Speed up activity numbers 2-9
2.	YOR > 65%	Not Good Enough	Stacking yard full	Slow down activity numbers 2-9
3.	Dwelling Time > 6 days	Not Good Enough	Can make YOR > 65%	Slow down activity numbers 2-9
4.	Dwelling Time < 6 days	Good	Can make YOR < 65%	Speed up activity numbers 2-9
5.	CSH >100 Units/hour	Good	Can make YOR < 65%	Speed up activity numbers 11-15
6.	CSH <100 Units/hour	Not Good Enough	Can make YOR > 65%	Slow down activity numbers 11-15
7.	BOR > 70%	Not Good Enough	Can make YOR > 65% and CSH < 100 unit/hour	Slow down activity numbers 11-15
8.	BOR < 70 %	Good	Can make YOR < 65 % and CSH > 100 unit/jam	Speed up activity numbers 11-15
9.	Fast WT and AP	Good	Can make BOR < 70%, YOR < 65% and CSH>100 unit/hour	Speed up activity numbers 11-15
10.	Slow WT dan AP	Not Good Enough	Can make BOR > 70%, YOR > 65% and CSH < 100 unit/hour	Slow down activity numbers 11-15

Evaluation of Operational Performance Monitoring is required between Regulators Terminal Operators and the parties who act as Logistics Service Providers before the arrival of ships every week so that if there are problems they can be resolved and produce effective and efficient performance.

5 Conclusions and Recommendations

From the study results it can be concluded:

1. The current loading and unloading time for receiving and loading vehicles is 168 hours 35 minutes 49 seconds at the domestic terminal and 168 hours 30 minutes 34 seconds at the international terminal
2. Some strategies to improve and improve VA and NNVA to reduce time include:
   a. Eliminate the invoice payment process for both invoice receiving and invoice loading, by working with banks for faster online transactions.
   b. Eliminate the activity of printing stacking cards and printing job slip cards, using an online system.
   c. Reducing the activity time of carrying vehicles from the inspection area to the stacking yard and from the stockpiling yard to the ship by improving the quality of human resources in charge of these activities.
   d. Reducing the vehicle stacking time in the yard to 3 days, by setting the vehicle stacking fee to 3 days.
3. Predicted loading and unloading time for receiving and loading vehicles after repairs are made at the domestic terminal is 72 hours 20 minutes 55 seconds (down to 42.91% of the original service time) and at the international vehicle terminal is 72 hours 20 minutes 34 seconds (decreased to 42.93% of the original service time)

Some recommendations that can be given are as follows:

1. Expanding the area of the stacking yard;
2. Encouraging and preparing a special area for checking equipment in vehicles at domestic vehicle terminals;
3. Reducing the time limit for storing vehicles that were originally charged with a yard fee after more than 6 days, to be charged a yard fee after more than 3 days to increase the discipline of service users in using the yard;
4. Increasing the scope of using the MyCar application and integration with other applications so that service is faster;
5. Collaborate with banks to pay for transactions with the online system;
6. Increasing the qualifications, skills, and education of the Loading and Unloading Workers;
7. Prepare shuttle vehicles to support mobilization in the vehicle terminal area.

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