

**REDUCING THE PROCESS TIME OF CUSTOMS CLEARANCE OF
FULL CONTAINER LOAD (FCL) AT THE COLOMBO HARBOUR
USING A MULTI-MODAL TRANSPORTATION SYSTEM**

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This is to certify that the Research Report on

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DECLARATION

I certify that the Research Report does not incorporate without acknowledgement, any materials previously submitted for a degree or diploma in any University, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in the text.

.....

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09th July 2021

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LIST OF ABBREVIATIONS

TEU - Twenty Equivalent Unit
CICT - Colombo International Container Terminal
JCT - Jaya Container Terminal
SAGT - South Asian Gateway Terminal
HS – Harmonized System
PLC – Public Limited Company
UPB– Unaccompanied passenger baggage
RCT - Rank Container Terminal
CusDec – Customs Declaration
WCO - World Customs Organization
ASYCUDA – Automated System for Customs Data
SLC - Sri Lanka Customs
GL 1 – Grayline 1
GL 2 – Grayline 2
HRC – High Risk Cargo
NCT – New Container Terminal
CRT - Central Railway Terminal
Kmph – Kilometers per hour
EFC – Export Facilitation Centre
RFID - Radio Frequency Identification

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EXECUTIVE SUMMARY

The container traffic in Colombo Sea port and suburbs is a major issue for Sri Lanka Customs in their process of releasing cargo with a minimum time frame. The research is mainly focused on how to reduce the container traffic and lead time of customs clearance process using a multimodal transportation system. The chapter 01 gives a brief introduction about Sri Lanka Customs, Colombo Sea port and further focus regarding the objectives of the research including the justification and limitations. The chapter 02 will discuss regarding the background of the research topic as how the role of Sri Lanka Customs has been changed from the collector to a facilitator. It also briefs about the facilitation provided by Sri Lanka Customs to its customers at the moment and still why it takes a significant number of hours to release a container based on the time release studies conducted by Sri Lanka Customs itself.

How the research is going to be carried out, is discussed in the chapter 03. The secondary data from the ASYCUDA system will give the basic statistics for research and several theoretical concepts will be used to analyze the data and design the models. The methodology of the research is simply elaborated in this chapter using several statistical parameters such as probability distributions. Chapter 04 is allocated for the literature review. Though it is difficult to find literatures related to customs clearance process and multimodal transportation, the literature review is basically focused on the customs lead time of different countries in the world and rail-road hybrid transportation models.

Chapter 05 is consisted with analyzed data with interpretations. The secondary data collected from the ASYCUDA system are analyzed using several statistical methods and gives a basic idea regarding the issues of the current clearance process, especially in transportation. It also gives a general idea about the existing capacities of Sri Lanka Customs and a real time picture of the customs clearance process. The expected solutions for the issues identified by the analysis are given as an expert idea in the chapter 06. It will discuss about the possible ways to overcome the current issues and what are feasibilities.

Research design is introduced in the chapter 07 as where the railway terminal should be established, how many train movements required, what is the capacity of the cargo trains, what is the ideal speed of the train should be etc. And also it will show the graphical representation of

the central railway terminal and road network design inside the port. The processing times for each level are calculated and gives a summarized information regarding the reduced lead time of the customs clearance process.

The final two chapters are allocated for the conclusion and the recommendations of the research. The lead time of the customs clearance process can be reduced by 25% by this multimodal system and it is suggested to implement the system after a feasible study with few other recommendations.