CONTRIBUTION OF PORT LOGISTICS DEVELOPMENTS FOR THE MARITIME CONNECTIVITY OF A PORT

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Thesis submitted in partial fulfilment of the requirements for the Degree of Master of Science

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Sri Lanka

July,2019

DECLARATION OF ORIGINALITY

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other university or institute of higher learning and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

Contribution of port logistics developments for the maritime connectivity of a port

Maritime connectivity of a port explains how well a port is connected to international maritime networks. When a container line selects a port of call, it takes into consideration maritime connectivity of the particular port. Therefore, port authorities strive to enhance the quality of services offered by ports with the assistance of suitable port logistics facilities.

This nature motivated to study the contribution of port logistics developments for the maritime connectivity of ports. The methodology adopted for the current study is comprised of two stages. First stage online mail survey based on the perception of senior managers attached to global container line agencies and local offices registered in Sri Lanka try to identify, which port logistics developments affect maritime connectivity of ports. The second stage quantitative data analysis was conducted using Pearson correlation method to validate the results of the mail survey. And simple linear regression analysis was performed to assess how significant is each port logistics development on the maritime connectivity of a ports.

Accordingly, port annual handling capacity, number of quay cranes available, number of reefer plugging facilities available, number of berths available, quay length and number of terminals are identified as significant port logistics developments to the maritime connectivity of a port. Due to the limitations in collecting required data the second stage analysis is limited only to the superstructure and infrastructure related port logistics developments.

This current study envisions new area on which port logistics developments affect maritime connectivity of a port. Therefore, this is beneficial for both port terminal operators and ship operators. Terminal operators will be benefited in identifying optimal development options to enhance port connectivity while container line network planners will be benefited in identifying which factors they should consider in identifying most connected hub ports for their container linear services.

Key words- Maritime connectivity, Port logistics, Intermediary ports, Container liner services, Hub ports

ACKNOWLEDGEMENT

I would like to offer my heartfelt gratitude to my research supervisors, Dr. Indika Sigera Senior Lecturer, Department of Transport and Logistics Management and associate professor Stephen Cahoon, University of Tasmania for continuously monitoring and providing me all the necessary supports and guidance throughout the research in achieving my final target. I have been fortunate to have both of them as my supervisors and without their encouragement, supervision and advices this may not have been a success.

A very special gratitude goes to the post-graduate research coordinator Dr. Varuna Adikariwattage for conducting research progress reviews and the immense support given through the process. It is my honor to remind the extensive guidance given by my research review panel represented by Dr. Mahinda Bandara, Dr. T. Sivakumar and Dr. Nalaka Jaykody for the reviews and the guidance given to succeed the study. Further I would like to express my profound gratitude to Dr. T. Sivakumar, former Head of the Department of Transport and Logistics Management of University of Moratuwa and the current Head of the department. Prof. Amal Kumarage for the opportunity given.

My heartfelt thank should deliver to the Dr. Premachandra, Managing Director of the Sri lanka port authority and all other staff members of port authority who helped in providing necessary data. Further I would like to express my sincere gratitude towards the participants for questionnaire survey for providing their valuable responses and comments which helped to improve the quality of this thesis. I would like to express my heartfelt gratitude to the each and every person in shipping lines who made my effort on this thesis become a success.

I would make this an opportunity to deserve my sincere gratitude to staff members and the non-academic staff of the Department of Transport and Logistics Management. I am sincerely thankful to my family members, friends and all other people who have given me support, courage and guidance for the assistance they have given throughout the thesis.

Surandika Rupasinghe

LIST OF ACRONYMS

Abbreviation	Description
ASC	- Annualized Slot Capacity
TEU	- Twenty feet Equivalent Unit
ULCS	- Ultra Large Container Ship
EDI	- Electronic Data Interchange
SLR	- Simple Linear Regression
LSCI	- Liner Shipping Connectivity Index
JCT	- Jaya Container Terminal
SAGT	- South Asia Gateway Terminals
CICT	- Colombo International Container Terminal
UCT	- Unity Container Terminal
RORO	- Roll On Roll Out

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