

UNIVERSITI TEKNOLOGI MARA

**KEY SUCCESS FACTORS FOR
INTERSTATE ROLL-ON ROLL-OFF
SHORT SEA SHIPPING IN THE
BRUNEI, INDONESIA, MALAYSIA
AND PHILIPPINES EAST ASEAN
GROWTH AREA**

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Thesis submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy

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CONFIRMATION BY PANEL OF EXAMINERS

I certify that a panel of examiners has met on 07 January 2016 to conduct the final examination of Aminuddin Md Arof on his Doctor of Philosophy thesis entitled “Key Success Factors for Interstate Roll-on Roll-off Short Sea Shipping in the Brunei, Indonesia, Malaysia and Philippines East ASEAN Growth Area” in accordance with Universiti Teknologi MARA Act 1976 (Akta 173). The panel of Examiners recommends that the student be awarded the relevant degree. The panel of Examiners was as follows:

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as reference work. This dissertation has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduates, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The aim of this study is to determine the key success factors for interstate Ro-Ro Short Sea Shipping (SSS) operations in the Brunei, Indonesia, Malaysia and Philippines East ASEAN Growth Area (BIMP-EAGA). Although the literature has addressed a myriad of important factors through earlier research, the identification of the key determinants for the success of SSS operations in this sub-region is imperative because each route or corridor has its own peculiarities. Hence, this study is expected to assist SSS authorities, private investors and financial institutions to focus their limited resources on several key factors that could ensure the success of their SSS undertakings. The initial step in the research design involved the identification of relevant factors that have contributed towards successful SSS operations through a process of literature review. However, the breath of the literature on SSS outside Europe and North America, which may differ in the required variables for a successful SSS operation is still limited. Hence, a Delphi survey has been conducted with sub-regional SSS experts through a purposive sampling method to identify any new determinants and assess their opinions on the relative importance of all the determinants involved. After identifying the key determinants, their weightages were subsequently determined through the Analytic Hierarchy Process (AHP). As a result, a decision making model to assess the prospect of interstate Ro-Ro SSS operations along the routes identified is established. This study addresses the gap in the literature by focusing on interstate Ro-Ro SSS in BIMP-EAGA and extending the usage of a combined Delphi-AHP technique to the domain of SSS. Additionally, unlike most contemporary SSS research that focuses on developing SSS as a viable alternative to road transportation, most of the routes identified in BIMP-EAGA are inter-island connections. Hence, this research also contributes to the dearth of literature in corridors where SSS is an imperative in order to facilitate sub-regional connectivity and economic development. Therefore, this decision making model is expected to assist the sub-regional stakeholders to address the identified key determinants required for a successful SSS operation.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xiv
LIST OF FIGURES	xxi
LIST OF SYMBOLS	xxii
LIST OF ABBREVIATIONS	xxiii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Research Objective	4
1.4 Research Questions	5
1.5 Significance of the Study	6
1.6 Scope and Limitation of the Study	6
1.7 Research Design	7
1.8 Summary	8