

Sno	Name of the Scholar	Name of the Supervisor	Title of the Research Topic	Ph.D. Award
7.	Mr. Kaza Sricharan Yajvi	Prof. Ch.Venkataiah	A Study on Visakhapatnam as a Transshipment Container Hub and a Gateway Port to South-East-Asia	Thesis Submitted in June 2015

ABSTRACT

Containerisation is gaining momentum in India with the east coast ports poised for growth with bright prospects for massive investments in the pipeline to meet the futuristic challenges as per the requirements projected by Maritime Agenda -2020. The export and import trade of India with its neighbouring eastern countries and with other South, East, Asian countries is described. The study analyses the Strengths, Weakness, Opportunities and Threats of Indian East coast container ports in view of future development as transshipment container hub port by the use of a SWOT analysis model. The study also incorporates the following models:

1. Alternate gateway - this model compares the India's present major gateway port – Jawaharlal Nehru Port Trust (JNPT), Mumbai on the west coast with the proposed gateway port – Visakhapatnam on the east coast. The destination and source port is considered to be Singapore which is the transshipment hub port for the east bound trade. Delhi is considered as the container capital of India, being the centre of trade & containerization of the entire northern belt.
2. Hub & Spoke - It envisages to compare the important aspects of maritime trade – Time and Cost and also the economically as well as environmentally beneficial aspect of fuel saving for the two selected Hub container ports and their corresponding Spokes, which have been selected for their potential and hinterland connectivity. The presently utilized hub port on the east coast of India, Chennai is compared with the proposed hub port in Visakhapatnam by use of this model.

These models are utilized to project a comparative benefit analysis in terms of cost, time saving and environmental benefits by use of Visakhapatnam as Transshipment container hub and gateway port to South – East – Asia

PURPOSE:

- 1.To study the prospects of Visakhapatnam as transshipment hub & a gateway port by focusing on the following study variables:
 - Costs associated with hinterland & ocean transport.
 - Time associated with hinterland & ocean transport , and importantly ;
 - The environmental issues (Fuel Saving) associated with ocean transport.

2. To study the SWOT analysis of east coast container ports to evaluate suitability as transshipment and gateway port.

DESIGN / METHODOLOGY:

The study is carried by using the three comparisons as illustrated in following models:

MODEL 1: ALTERNATE GATEWAY

Delhi is considered as the container capital of the India with it being the centre of all North India containerization. Singapore is the transshipment hub port for all the containers on the east bound trade. The cost and time for both hinterland and ocean travel and also the economically as well as environmentally beneficial aspect of fuel saving during the ocean transit for the present utilized gateway port, Mumbai(JNPT) is compared with the proposed gateway port , Visakhapatnam.

MODEL 2: HUB & SPOKE

The presently used hub port on the east coast of India, Chennai is compared with the proposed hub port of Visakhapatnam. The model considers 5 ports as spokes – Paradip, Haldia, Chittagong, Yangon and Kakinada. Each of these spoke ports have good containerization potential though not enough to be having a dedicated main line call.

It envisages to compare the important aspects of maritime supply chain – Time and Cost and also the economically as well as environmentally beneficial aspect of fuel saving for the two selected Hub container ports. The comparative benefit is analysed by the use of a program developed by the researcher using the platform of universally accepted “C” Language in “Turbo C” software. This geographical hub and spoke model bases its analysis on Distance, the main variable which has been identified by researchers in similar studies in the past.

MODEL 3: SWOT ANALYSIS

The following set of criteria is analyzed in the SWOT format for the ports selected in this model which are being eyed to be developed as container hub port : Infrastructure, deviation & distance, efficiency, hinterland & connectivity, tariffs , relationships & tie-ups.

FINDINGS:

- ❖ From the findings of Model 1 it can be concluded that by selecting Visakhapatnam as a gateway port instead of Mumbai to South East Asia, there is benefit of time saving, ship’s charter cost saving, fuel quantity saving and fuel cost saving in each trip as well as over the period of a year.
- ❖ From the findings of Model 2 it can be concluded that by selecting Visakhapatnam as a Hub port instead of Chennai to South East Asia ,there is benefit of time saving, ship’s charter cost

saving, fuel quantity saving and fuel cost saving in each trip as well as over the period of a year.

- ❖ From the findings of Model 3 it can be concluded that at present Chennai and Visakhapatnam are ideal ports to be developed as transshipment container hub ports in the east coast of India. However, in the future Krishnapatnam, Katupalli and Kulpi ports can also be developed as transshipment container hub ports.

PRACTICAL IMPLICATIONS:

World economy is dependent on cheaper and safe transport of mercantile. Among rail, road & sea transport, the latter is *Sinequanon* in terms of economy, safety and handling. Hitherto, Visakhapatnam remained as a mere passive member of the tremendous sea trade in South-East-Asia region. This study highlights advantages, opportunities & inherent strengths amongst all maritime ports in the region. An attempt is made to develop models for time-wise, profit-wise and expanding area-wise application.

ORIGINALITY / VALUE:

1. It identifies a gap in the Indian containerization structure taking into consideration future scenarios and proposes models to project benefits.
2. User friendly mathematical models were developed to perform the analysis which can be expanded to cater to future studies on this particular subject.
3. Programming in C-language was done.
4. Models identify benefits in Time, Fuel saving (Environmental aspect) and Costs.
5. Sensitivity analysis provides insights of margin of benefits.
6. SWOT matrices provide insights of the ports considered
