The 6 th International Maritime Transport and logistics Conference

#### GLOBAL INTEGRATION IN PORTS FUTURE OPPORTUNITIES





19-21 March 2017 Alexandria - Egypt

# INTEGRATION IN PORTS AND MARITIME INDUSTRY IN MODERN ECONOMY

# **DR. RASHA FOUAD ABDEL RAHMAN**







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#### FIRST: PORTS AND LIFE CYCLE MODEL



#### Time on market

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### SECOND: TRIGGERS OF INTEGRATION

2.1 Evolution of Shipping Companies
2.2 Structural Evolutions within Ports
2.3 Evolution of Port and Maritime Industry
2.4 Controlling the Quality of Shipping Services
2.5 Macroeconomic Problems





### **THIRD: FORMS OF INTEGRATION**

#### 3.1 Vertical Integration

In economic theory vertical integration involves an entity, trying to acquire or take control of the activities that are upstream or downstream of the stage it is involved in.

#### 3.2 Horizontal Integration

It is the cooperation between companies competing in the same sector or market as a process of consolidation or for the penetration of new markets. The 6 <sup>th</sup> Internation

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# FOURTH: ECONOMICS OF INTEGRATION 4.1 Vertical Integration Economic Benefits

- *Economies of Scope*: lower average costs by offering multiple complementary services.
- Reducing maritime costs: Vertical integration is expected to minimize transactions costs, and reduce operational time for goods or cargo handling
- One stop shop: Vertical integration offers customers the option of buying more services from a single provider
- *Market control:* consumer network is expanded, as new and attractive products can be offered
- *Limitation of market power abuse*: Upstream services will have no ability to abuse market power to its downstream component.



#### FOURTH: ECONOMICS OF INTEGRATION

#### 4.2 Horizontal Integration Economic Benefits

- *Economies of scale* : diversity, spreading of fixed costs, increased productivity of variable inputs, which increase efficiency.
- *Reduction of transaction cost:* Minimise transaction costs using the comparative advantages of the alliance partner in information acquisition, and lower capital investment.
- *Risk sharing:* Share of financial risks, resources and all types of risks, as well as profit sharing, technological and informational exchange. Lead to profit maximization, and increase in shareholder wealth.



#### 4.2 Horizontal Integration Economic Benefits

#### **Operational Benefits:**

- increase in frequency of services
- vessel planning and coordination on a global scale.
- Reduction of congestion in ports, since vessels are coupled and shared together.
- Reduction of the risk of empty containers, as the load is divided between the members of the alliance



4.2 Horizontal Integration Economic Benefits

Marketing Benefits: Satisfy customer requirements through:

- Higher frequency
- Higher flexibility
- Higher reliability
- Network expansion

Offering of a greater variety of routes and destinations



#### **4.2 Horizontal Integration Economic Benefits**

- **Higher Market power**: The ability of firms to secure stronger positions in their market to achieve competitive advantage.
- **Higher market share:** can be gained by taking part in a colossal multi-company alliance rather than functioning alone, which, enhances:
- Competitive position
- Wider geographical scope
- Increase in purchasing power



### FIFTH: EXAMPLES OF INTEGRATION

#### **5.1 Strategic Alliances**

*Liver Pool Ports and Panama Canal Strategic Alliance:* The Panama Canal Authority (ACP) and UK ports operator Peel Ports, have entered into a Memorandum of Understanding (MOU) in November 2016.

The agreement creates a strategic alliance facilitating international trade and generating new business by promoting trade routes between Liverpool and the west coast of South America via the Panama Canal.





## FIFTH: EXAMPLES OF INTEGRATION

#### **5.1 Strategic Alliances**



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# SIXTH: KEY PERFORMANCE INDICATORS FOR INTEGRATION

### 6.1 Factors of Integration

main factors of port competitiveness and transport integration that facilitate port integration global supply chain

- Efficient inland water ways connections
- Stable relationships with other actors in supply chain
- Intermodal services
- Feeder services extension
- Information availability



# SIXTH: KEY PERFORMANCE INDICATORS FOR INTEGRATION

# 6.1 Factors of Integration

- Communication through Electronic Data Interchange EDI
- Efficient inland water ways connections
- Stable relationships with other actors in supply chain
- Intermodal services
- Feeder services extension
- Information availability
- Communication through Electronic Data Interchange EDI



# SIXTH: KEY PERFORMANCE INDICATORS FOR INTEGRATION

# 6.2 Tactical Decisions for Integration

- In order to achieve a higher degree of transport integration, tactical decisions should be taken:
- Select the key logistics service providers
- Establish long term relationships with customers (by passing intermediaries)
- Standardize procedures and methods
- Integrate supply chain via IT
- Broaden the range of supplied services (Value added logistics services)



# SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT

# 7.1 Screening of Egypt Suitability for Integration

### First: Strengths

- Strategic location of Egyptian ports
- Government awareness of importance of maritime sector in Egypt
- Maritime transport and related logistics services play an important role in Egypt's economy
- foreign seaborne trade represents about 90% of the Egyptian foreign trade volume
- Adoption of Landlord model to increase the competitiveness of Egyptian ports
- Development of the Suez Canal



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

# 7.1 Screening of Egypt Suitability for Integration

#### Second: Weaknesses

- Inefficient port infrastructure
- Expensive transport fees
- Shortage of qualified personnel
- Bureaucratic and regulative inefficiency
- Insufficient equipment



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

# 7.1 Screening of Egypt Suitability for Integration

#### Second: Weaknesses

- Inefficient maintenance and repair
- Inefficient connection between marine and railway infrastructure
- Inadequate technology
- Custom Clearance regulations and systems
- Dispersion of responsibilities among several government departments



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

7.1 Screening of Egypt Suitability for Integration

# **Third: Opportunities**

- Improvement of ICT in Egypt
- Efficient graduates in transport and logistics
- Adequate experts in the field
- Cooperation with global maritime actors



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

7.1 Screening of Egypt Suitability for Integration

### **Fourth: Threats**

- Unstable political environment
- Inefficient transport infrastructure
- Bureaucratic and regulative inefficiency in public sector
- Traffic congestions
- Weak business environment
- Lack of innovation
- Inefficient institutional framework



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

# 7.2 Transport Infrastructure

The main reasons of infrastructure problem:

- Infrastructure dominated by public authorities takes into account social, political aspects and financial limitations.
- Logistical providers dominated by market players don't have to depend on port authority.
- Dispersion of responsibilities among several government departments makes it difficult to develop an integrated intermodal transport policy.



# **SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT**

### 7.2 Transport Infrastructure

#### The main reasons of infrastructure problem:

- Port authority power is limited in developing infrastructure.
- Road network is very congested and leads to other serious problems as road safety, noise, and pollutions within cities.
- Rail-Road transport is already in operation, but the operational capacity is very limited due to the fact that the priority is given to passenger transport



SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT 7.3 Business Environment- Ease of Trading Across Borders

- The time and cost for required documents during port or border handling, customs clearance and inspection procedures need 240 hours while it needs only 121 hours in MENA region and 9 hours in OECD high income countries.
- The time and cost for obtaining, preparing, processing presenting, and submitting documents need 265 hours in Egypt and 101 hours in MENA region and 4 hours only in OECD high income countries.
- Cost to import: it costs US 1000 in Egypt while only US 305 in MENA region and US 26 in OECD high income countries.



# SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT 7.4 Custom Clearance

- The Egyptian Department of Customs, operates under the Ministry of Finance, is responsible for clearing merchandise into Egypt.
- Imported goods may not legally enter Egyptian commerce until the shipment has arrived within the port of entry and customs has authorized delivery of the merchandise.
- Import declarations and corresponding documentation are filed either by the customs broker or by the importer.



# SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT 7.4 Custom Clearance

- Standard commercial practice is for a broker to file the entry as an agent of the importer.
- Declaration is processed in the event of goods being imported to the local market from other countries against the payment of customs duty & sales taxes or duty exempted whichever is applicable.



# SEVENTH: OVERVIEW OF MARITIME INTEGRATION IN EGYPT 7.4 Custom Clearance

Derived from interviews with transport experts the main problems they face with custom clearance in Egypt which require fast correction are:

- Absence of electronic custom clearance system
- Non-consolidated custom clearance system
- Problems in customs regulations enforcement
- Custom clearance procedures are not uniform in all ports





# Conclusions

- Maritime transport towards the maturity phase which needs innovation to avoid the decline phase which trigger integration to facilitate more innovations in logistics management.
- Horizontal and vertical integration take place in the port sector for better integrated transport chain.
- Developing countries have to adjust their port and transport infrastructure to raise country's competitiveness in trade, to reach sustainability.





# Conclusions

- Port authorities should enhance the integration process to face current port challenges, as congestion, increasing costs, limited handling capacity and additional traffic.
- Tactical decision of port authorities should go beyond traditional facilitator to reach economies of scope, scale and raise port competitiveness
- Integration facilitates development of freight distribution, information systems, better access to hinterland, and intermodal transport.





# Conclusions

- Main objectives of horizontal integration are economies of scale, increase of volumes carried, greater market share, extension of the geographical coverage in maritime networks.
- Main objectives of vertical integration are cost reduction along the supply chain and economies of scope.



# **Recommendations and Tactical Decisions for Egypt**

- First: Development of Port Operations
- Egyptian ports performance need improvement to strengthen their economic role through:
- Reduction of ports operating costs
- Shortening the time needed for container movement
- Raising port capacity
- Real time monitoring and control operations
- Better marketing campaigns



# **Recommendations and Tactical Decisions for Egypt**

- First: Development of Port Operations
- Egyptian ports performance need improvement to strengthen their economic role through:
- Coordination between transport modes
- Advanced ICT solutions
- Efficiency automation
- Cooperation and integration within port
- Advanced and reliable information
- Fast exchange of data for decision making



### **Recommendations and Tactical Decisions for Egypt**

Second: Intermodal Transport System Development

Intermodal transport is an important factor of integration Egypt intermodal transport system needs the following upgrades:

- Seaport: need expansion to establish a container barge terminal, including the berth dimension, berth number, and total required quay length.
- The improvement of Alexandria—Cairo waterway to ensure a safe and efficient barge transport all the year, including the required water depth, water width, bottleneck lock, bottleneck bridge, and necessary navigation aids.



### **Recommendations and Tactical Decisions for Egypt**

Second: Intermodal Transport System Development

- River port: creation of new river port in the north of Cairo it should include three parts: at the quay, between quay and storage yard, and within the storage yard.
- Government of Egypt should provide attractive environment to attract more private actors to get involved in the River-Road transport market through better investment environment as taxes exemptions, issuing new attractive projects for private actors.





### **Recommendations and Tactical Decisions for Egypt**

Second: Intermodal Transport System Development

Local truck transport: the last part of the inland door-to-door transport system. local truck is responsible for delivering and picking up the containers to or from the end customers or shippers within the country. Safe and efficient container transport between the seaports and final destination should be ensured through:

- More checking points
- installing GPS tracking systems in trucks
- drivers should take safety and defensive driving training course as prerequisite for job
- regular check of trucks GPS system, maintenance, drivers health





# **Recommendations and Tactical Decisions for Egypt**

Third: Upgrade Port Information System

- Inter- organization information system between ports and different actors of supply chain should be created as basis for maritime integration to supply chain which requires the following procedures to avoid any bottleneck in system development and to ensure system efficiency.
- Well established information technology infrastructure before implementation of the system to avoid system failures
- Updating business processes within the ports to be consistent with the system





# **Recommendations and Tactical Decisions for Egypt**

Third: Upgrade Port Information System

- Upgrading ports equipment to operate in harmony with the new system
- Strengthening port infrastructure and support facilities in IT
- Strengthening institutional support
- Coordination between public and private community members to invest in the new system
- Upgrade port personnel language and technical skills including ICT skills as well as understanding of new technologies to be able to use the new system efficiently





### **Recommendations and Tactical Decisions for Egypt**

- *Fourth:* Automation of Custom Clearance Procedures In Rotterdam port 95% of customs documents relating to export containers can now be dealt electronically.
- It is no longer necessary to stop at the terminal to submit documents.
- Exporters and freight forwarders can simply send prenotification of the documents electronically via the Portbase service Notification Export Documentation.
- The documents will then be released automatically when the container arrives at the terminal.





### **Recommendations and Tactical Decisions for Egypt**

- *Fourth:* Automation of Custom Clearance Procedures
- To solve problems with customs and reduce clearance time requires Egypt needs creating information system to facilitate electronic customs procedure includes:
- Electronic submission of manifests and entries
- Payment of duties electronically by banks
- Sharing of files by custom officials through the system
- Transferring of electronic messages between Customs and Importers





### Thanks

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