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The Indication of current Import-Export of Iran in the case of Bandar-Abbas port and Shahid Rajaee Terminal Container

By

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Abstract

This study aims to analyses the potential role of Iranian ports for carrying a part of containerized cargo, which under present circumstances would be transported via 'traditional' shipping routes. By considering the shorter Iranian route in linking the European Union and Asia in terms of time and cost in comparison with the traditional shipping route, the scenario of a 'route via Iran' is proposed. This scenario reflects a way to extend the global supply chain and accelerate integration of the Commonwealth of Independent States (CIS) and Eastern European countries into the globalization process.

Iran, as a historical transit route, could play a new role in the changing world. After1985 an increasing amount of containerized cargo has been transported between South East Asia and Western Europe. In this study, a scenario analysis was employed as a research tool to generate a 'route via-Iran' scenario.

***Key words**: Iran's Import-Export-Shahid Rajaee Terminal Container*

Introduction

The Iranian economy is very much dependent upon natural resources (in particular oil and gas) and therefore the degree of diversification is low. It is important for the country to search for opportunities and new ways to tackle its economic problems (manifested in high unemployment, an undiversified income source, and in a broad sense shortage of competitiveness) in order to establish itself as an important player in the global economy. The comparative advantages of an Iranian route, as opposed to the traditional ocean shipping route, are used as a theoretical basis to generate the scenario for this study. This scenario indicates that from a global perspective, it is possible to decrease costs and increase competitiveness due to the resulting shorter voyage time and consequent lower costs when using a transit route through Iran. This scenario leads to an assumption that because of Iran's comparative advantages in the foreseeable future, the Far East-European transit business could become one of the major commercial services in the country.

One of the most significant and strategic issues involved every society, is economical and commercial point of view. In fact, each country has its own different resources and supplies; in order to be successful in the society, considering to export-import aspects it is felt essential. Nowadays, when we are talking about Globalization and Business, interaction to International business found main attraction. In Iran, International Business is done by three major kinds of transportation Ways Sea, Air and Road. As a result Sea transportation needs port, Free zones and etc. The most significant port in Iran is Bandar-abbas where near 90%of sea transportation is transited. In this study, with considering of Iran's economy in the case of export-import researcher is following the rolls and effections of Bandar-abbas port .On the other hand, researcher is going to indicate Iran's export-import, potential and performance of Bandar-abbas port.

Objectives of the study

- To study the indication of current Export-Import of Iran
- To study the relationships of sea transportation and export-import in Iran
- To study the classification and typology of ports in Iran
- To study the introducing of Bandar-Abbas port(Shahid Rajaee terminal container port)
- To study the introducing new technology in international business cargo.

- **Review of Literature**

- It is quite clear that all transportation systems are affected by both internal and external factors. Internal factors affect the transportation system directly and include developments in transport technology, engine advancement, control systems, deregulation, containerization etc. External variables, which are most commonly dependent upon the global economy, are also very important and can have a very significant effect upon technological, social and integration concepts within the transportation system. In the maritime supply chain, both internal and external factors are equally important, because a seaport serves as a link between the shipping industry and the port's hinterland.
- Transportation as a part of the integrated global supply chain is affected by many variables that lay both inside and outside the sector itself. The international trade environment is one of the most significant of these variables and with its continuous growth in recent years, the transport industry has experienced the need to supply ever increasing numbers and quality of services in all areas of the world. From the internationally exporting manufacturers' point of view, transportation is an unavoidable part of the total manufacturing cost of their product. Considerable efforts are continuously made to reduce such costs, mainly because imported goods have to compete with locally manufactured goods not only in terms of quality but also perhaps more importantly, price. Nonetheless, the perception about transportation changed drastically during 1990s. A large number of logistics companies emerged, which provided not only transportation solutions, but also marketing, sourcing and other business supporting operations. Such companies started to offer value-added services in the supply chain and it was no longer viewed as a part of the production cost.

Research methodology

Descriptive survey method was used in the present study. Primary data was collected by the tools of Interview with shipping companies management and observation was the help of this research.

Statement of the problem

One of the most significant and strategic issues involved every society, is economical and commercial point of view. In fact, each country has its own different resources and supplies; in order to be successful in the society, considering to export-import aspects it is felt essential.

Nowadays, when we are talking about Globalization and Business, interaction to International business found main attraction.

In Iran, International Business is done by three major kinds of transportation Ways Sea, Air and Road. As a result Sea transportation needs port, Free zones and etc. The most significant port in Iran is Bandar-abbas where near 90%of sea transportation is transited.

In this study, with considering of Iran's economy in the case of export-import researcher is following the rolls and effections of Bandar-abbas port .On the other hand, researcher is going to indicate Iran's export-import, potential and performance of Bandar-abbas port.

Scopes of the study

This research talks about the situation of Iran's export-import that carries out the topics Transportation, ports and etc. Hence, researcher is going to have brief look on this aspect. ports in Iran divided to North and South of country the major port is Bandar-abbas port which is located in south of Iran included Shahid Rajaee Terminal Container where the vast majority of container transportation is done. In continue, this research will discuss about this strategic port. Some points involved following below:

- Port operation services
- Private terminals
- Logistics & international freight forwarding
- Shipping and marine services
- Information technology
- Civil and construction
- Technical services and engineering

Analysis of data

In Iran according to geographical point of view, in south of Iran there is near by 2900 km water border of Persian Gulf and Oman sea. These borders are connected to free-water through the world and this is excellent situation for Iran to have the benefit of global transits. It has caused that Iran to be under this golden fortune and get the benefits of its ports provided since 1970.

In the north, there is Caspian Sea where is called gate of Europe connected Asia to Europe .based on this opportunity Iran's government provided many ports and free-trade zones.

In continue, I am going to introduce the ports and free-trade zones and discuss about main port named BANDAR ABBAS (SHAHID RAJAEE).

Iranian ports need to have the following facilities for the future:

• Quay length of 300-320m and port channel depth of 18-20m

• Gantry crane performance of 35-45 moves per hour and 22 hours of operation daily (281,000-361,000 moves per year)

• Total container waiting time in transit area less than 3 days

• Trailer turnaround time less than 30 minutes

• 4 to 5 gantry cranes with capacity of handling 800,000 TEU per year

• Capacity to handle 5000 TEU ships

These minimum requirements set the parameters for the proposed Iranian container landbridge link which this paper discusses.

In terms of the Ocean segment (Far East – Bandar Abbas), Iranian interests have a serious chance of gaining some of the income from this segment in addition to

benefits from cargo handling in Bandar Abbas.The port operation part of the Caspian Sea segment will be undertaken entirely by Iranian interests but the shipping element might be undertaken by a non-Iranian party.

Since 1990, container transportation growth has exceeded the growth of overall maritime trade (ESCAP/UNDP, 2001). In 2001 ESCAP published a long term Regional Shipping and Port Development Strategy, which predicted container trade developments until 2011. The world's container throughput in 2011 is expected to be approximately122 million TEU and the distribution of the trade is presented in Table 1. The project stressed that Asia (South East and China) and Europe will be the most important regions in terms of container trade in the

future and therefore will show the highest growth potential for long-distance container movements.

In 1998, 4.18 million TEU were transported between the Far East and Europe, but by1999 the volume had increased to 4.25 million TEU. According to ESCAP, the container growth rate projection shows that total container traffic in 2011 on the traditional shipping route between Asia and Europe will reach 18 million TEU.

With such a large growth in container movements forecast it is reasonable to presume that the opportunities for modal and route changes would also exist and in the light of this it is possible that some of this container traffic could be diverted to the rail-based Iranian route utilizing traditional shipping between the Far East and Iran and then rail links through Russia to access markets in the FSU and Eastern Europe.

This would save considerable sailing distance by traditional ocean shipping routes passing through the Suez Canal and around the continent of Europe and as a consequence considerable costs.

Table1presents some tentative indications of the potential for this route based around container handling capacity until 2011.

Potential container handling capacity of the Iranian route (million TEU).

Year	**Europe-Asia**	**Asia-Europe**	**Total**
2004	5.93	5.83	11.76
2005	6.23	6.21	12.53
2006	6.73	6.61	13.34
2007	7.13	7.01	14.14
2008	7.56	7.43	15
2009	8.01	7.87	15.88
2010	8.5	8.34	16.86
2011	9.00	8.85	17.85

Iran's high council of Free Trade Zone, recently ratified Bandar Abbas as a special economic area. The special status of the port located at the Strait of Hormuz at the entry of the Persian Gulf offers a gateway for Re-exports to and from Central Asia through its direct railway link as well as with the rest of Iran's network. It offers the best port facilities with 24 loading booths for ocean liners together with a range of well-equipped storage facilities, including mechanized, indoor and open-top. The zone is open to companies in the PG or elsewhere in the world to take advantage of the benefits from the special regulations. Incentives include the lack of tariffs and customs procedures. Manufacturers or Traders can rent space at preferential rates on a long-term basis to build their own required facilities.

Shahid Rajaee Port Complex Development

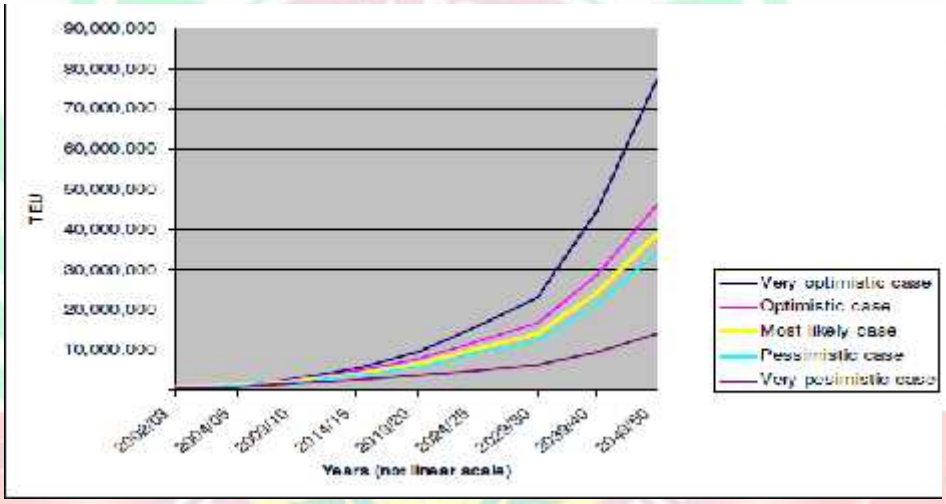
The development of Shahid Rajaee Port in the Iran from its beginningin the 1970s and 1980s and outlines the existing situation in which about half of the potential development space in the main harbour is occupied(Figure 1) the original port layout was based around general cargo and dry bulk operation s;containerisation still being in its early days.the desighn concept was for three basins (basin1,2 and3 from east to west);each having approximately 1000m length and 250 to 350m width with 650m wide peninsulas between.

Currently,dedicated container facilities only occupy the east side of Basin1,together with other storage areas. The storage and backup areas are extensive mainly due to long dwell times and the presence of container freight station (CFS)facilities.

General cargo and dry bulk are handled on the peninsular between Basins1 and 2 with some container handling using mobile cranes.edible oil is handled on a dedicated berth at the seaward end of Basin1 adjacent to the container facilities, with plans for expansion at the head of Basin2.oil for the nearby refinery is unloaded at twin oil berths insside the easten breakwater and these also feed the tank farm further along the coast.the oil berths are also used for the export of some oil products.

In the last few years, trade through Shahid R ajaee has increased rapidly and the existing container terminal is approching capacity.

As part of the study for the ports &ShippingOrganization(PSO),as undertaken by Halcrow and managed by Darya Sazeh,new cargo and traffic forcasts have been developed.these are based onavailable recent cargo throughout data for the port,with predicted growth rates for different cargo,taking account of a regional overview.the conclusion is that the main growth will be in domestic container cargo.the traffic pattern selected for planning the development(Graph1)is ahigh growth transhipment focus in accordance PSO's policy of competing with other regional players and promoting port use by main line vessels.the main effect of the growth rate and transhipment focus on port planning is to accelerate the rate at which the berth capacity is occupied.



Graph 1-Total container forcast including domestic container growth transhipment focus and transit traffic.

Container terminal development is envised in four main stages.

The first is currently in progress and will provide 850m of quary fronting the harbour entrance,67ha of paving and a dredged berth pocket and deepend entrance channel.constuction of the second stage,to include two 1000m side berths and another 70ha of paving is expected to start soon.stages three and four,providing facilities to the weest of the harbour and converting the general cargo area for containers world follow progressively.

Graph 2plots the progressive increase in demand for PSO's selected growth scenario against capacity provided.It should be noted that while the capacity of stages3 and 4 are shown as less than the demand at the same period,they are inclouded to indicate the the capacity growth for thes stages and development should be provided in time to meet the monitored growth.as noted above,stage4 represents the limiting planned capacity for this development.

Findings and suggestions

Findings

According to situation of Bandar- abbas port which is located near Persian Gulf and also being neighbor of Dubai the commercial point through the world, Iran has a lot of opportunities to be developed as a result of this issue.

In this term, shahid rajaee terminal container can play a very good role for transiting containers to connect Asia to Europe because it has Persian Gulf in south of Iran and Caspian Sea in the north where is the gate of Europe from Asia. Based on the study presented above, this terminal has massive potential to serve the global cargo but due to some points such as lack of new high tech systems, facilities and investment Iran has lost this benefit.

Furthermore, this port can have much more benefit in the case of servicing to foreigner vessels.

Suggestion

International Business by RFID

A new standard developed by the International Organization for Standardization (ISO) aims to remove doubts about the durability of Radio Frequency Identification (RFID) for shipping containers.

Electronic Cargo Tracking Solution including container security tracking is only effective when the transport history are tracked and monitored from end-to-end with holistic approach. As part of the global integrated supply chain security system and solution in providing monitoring services, AVANTE container transport tracking solution provides end-to-end

real-time intermodal container and rail car cargo transport access and intrusion tracking using patented active RFID ZONER™-RELAYER™ containers security tracking technologies:

1. Real-time container intrusion and tampering detection based on AVANTE patented RSSI differential and multi-mode sensors from ZONER™-CTID tags placed inside the container received by RELAYER™-CTOR readers attached outside of the container when any opening of the intermodal container on any of the six surfaces is created. Additional container security seal using optical continuity is available for container and trailer door intrusion tracking.

2. Transportation workers and staff are equipped with ZONER™-SSID badges that include a "transportation worker identification card" (TWIC), compatible passive card (ISO 14443), and an active ZONER™ component, beaconing every second to provide real-time location and proximity to the container for personnel safety and container security. In case of emergency, the driver and staff can press on the panic button to call for assistance.

3. Carriers including trucks, rail trains, aircrafts, and vessels include a monitoring RELAYER™-CTCR that has an embedded GPS, GPRS and SATCOM to provide real-time locating of container and cargo. Unauthorized intrusion into container and exceptions such as temperature excursions beyond normal, excessive mechanical shock, absence of driver, etc., are reported in real-time.

Raw materials, equipment, manufactured goods, and more – there are dozens of types of cargo that travel by sea cargo.

Indeed, most port count on the revenues from their station activities and terminals, and a vast set of businesses work directly or indirectly for transport and logistics companies specialized in this sort of cargo.

More and more of these businesses are turning to RFID for support.

One of the keys to speedy and efficient delivery is knowing where your cargo is. With RFID tags attached to the shipping pallets and containers, and to the trucks and dollies that move them around port warehouses, a logistics manager can more easily monitor and control their

movements. A company can also know which trucks and dollies are available for use, and exactly where they are at any point in time.

Tracking shipping using RFID way has been shown to reduce delays and help prevent pallets from being misplaced. It also helps the companies that deploy this type of system to provide a very efficient and high-quality service.

Often it's beneficial to track the shipping container with RFID, if the container is a returnable or reusable asset. By using RFID tags on pallets, drums, racks and other shipping containers to track their movements and associate them with specific customer shipments, organizations build an accurate information foundation to recover more of their assets and manage them more efficiently. For example, leading U.K. retailer Marks & Spencer is tracking more than 4.5 million trays, roll cages, dollies and other returnable containers for its fresh produce logistics operations with RFID tags. Marks & Spencer uses LXE MX5 mobile handheld computers to read RFID tags on its logistics assets as they move in and out six distribution centers.

By accurately tracking where assets are in the facility and in the supply chain, organizations can improve planning, reduce buffers and increase utilization, which all add up to real cost savings.

Asset tracking benefits aren't limited to logistics containers. Forklifts and other capital equipment, machines, tools, supplies and other assets can all be tracked and secured with RFID to improve visibility and availability, reduce losses and provide accurate information

for asset management and other software applications. High-value assets and shipping containers are sometimes tracked with active RFID technology, because savings from loss or theft of these high-value items can offset the higher tag costs.

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