

UNIVERSITY OF CAPE COAST  
DEPARTMENT OF GEOGRAPHY AND TOURISM

PRIVATE PARTICIPATION IN THE TEMA PORT CONTAINER  
TERMINAL AND ITS IMPLICATIONS FOR STEVEDORING COMPANIES  
IN GHANA

BY  
REGINA OBILIE-ODEI

Thesis submitted to the Department of Geography and Tourism, Faculty of  
Social Sciences, University of Cape Coast in partial fulfilment of the  
requirements for award of a Master of Philosophy Degree in Geography.

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## DECLARATIONS

### Candidate's Declaration

*I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.*

Candidate's Signature: Regina Obile-Odei Date: 06/06/08

Name: REGINA OBILE-ODEI

### Supervisors' Declaration

*I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.*

Principal Supervisor's Signature: [Signature] Date: 20/06/08

Name: Prof A. M. Abane

Co-Supervisor's Signature: [Signature] Date: 20-06-08

Name: Dr Roy Cole

## ABSTRACT

Containerisation has gradually become a dominant method of moving cargo the world over since its introduction in the 1960s and so has investment in container terminals. Container terminals form a central part of the transport infrastructure and its development leads to the overall development of the port system. The appointment of the Ghana Port Services Consortium (GPSC) to own and manage the container terminal under a 20 year build operate and transfer scheme (BOT) scheme will immensely affect the local stevedoring industry. The stevedoring industry in Ghana in itself has undergone a lot of changes including redefinition of its activities to include some aspects of shore handling.

Some anticipate a brighter future for this partnership to the industry. They believe that GPHA has embarked on a potentially viable and successful project with the Consortium. This is because the participation of the multinationals such as A. P. Moeller Maersk in such a venture will help the international financial institutions view the project in a more positive way and also make future expansion easier since there will be ready support from such financial institutions. Mention can also be made of technology transfer from these acclaimed maritime kingpins to their Ghanaian counterparts. However this transfer will not reach the local companies since they are outside the Consortium. Ghana aspires to become a hub port in the sub region and is therefore investing in infrastructural developments to enhance its (port's) image. However, people believe it must not sacrifice the interest of its local industry in order to achieve its aim.

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## DEDICATION

This work is dedicated to the glory of God, my parents, siblings, and my husband, Daniel Kwame Amoako-Sakyi.

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## CHAPTER ONE

### INTRODUCTION

#### Background

One of the fundamental objectives of transportation is the need to overcome the spatial gap between points of demand and centres of supply. Transport systems are expected to facilitate the movement of passengers or freight from their origins to their final destinations. The basic function of transportation is therefore the creation of utilities of place which is the carriage of goods and services from places of low utility to places of higher utility (Hoyle and Knowles, 1992).

Before containerisation, cargo was loaded on trucks piece by piece and driven to the port. At the dockside, each piece was individually unloaded and hoisted onto the ship. This was a time-consuming and a cumbersome process. Ships often had to be in the port for several days to complete the process of unloading and loading. An agreement was reached in the 1960s on the introduction of an international system that makes use of standard-sized containers suited for the road, rail and sea transport networks that can load and unload as near as possible to their (freight) origins and destinations (Tolley and Turton, 1995). Containers offer a direct facility between the major points of origin and destination and take maximum advantage of each mode according to the "geography" of the journey. As indicated by Faulks (1990),

“it is the container and not the vehicle, ship, train or aircraft that follows the required route” (p.137).

Containerisation is a technique or a practice of stowing freight in reusable containers of uniform size and shape for transportation. The freight may sometimes be oddly shaped and in different quantities, but when stowed in containers it can be handled in one piece, thus making it a lot easier to transport at reduced time and cost. Containerisation enables intermodal transport which involves total movement from the origin to the destination using different modes en-route like roadways, railways, shipping and airlines. It could either be a combination of several or even just two of these modes (Wikipedia Encyclopaedia, 2005; Branch 1970).

#### **Current containerisation trends**

The International Standards Organisation (ISO) defines freight container as "an article of transport equipment intended to facilitate the carriage of goods by one or more modes of transport, without intermediate loading"(Armadillo Marine Consultants, 2005). Containers come in different types and shapes. The ISO technically recommended lengths are 10 foot, 20 foot, 30 foot, and 40 foot but the most common containers are the 20 foot, and the 40 foot length. Several shipping lines have even started using 45 foot, containers. The width of the container is always 8 foot, and the standard heights are 8'6" or 9'6". In the year 2000, the container trade recorded a massive 200 million Twenty Foot Equivalent Units (TEUs) with the traffic estimated to grow at an average rate of 5 per cent per annum over the next 10 years. It might even double by 2010 (Armadillo Marine Consultants, 2005).

This has to a large extent been spurred by the growth of many Asian countries, most notable among them being China, Japan, Korea and Malaysia. As more Asian and Latin American economies pick up, a further growth of the container trade looks inevitable. As a result many shipping lines are today going in for massive expansion plans. The container fleet of the world stands at 6,685,811 with 7,206 vessels and another 1,561,313 TEUs on order books for 508 vessels. Carriers are looking at bigger vessels to improve their economies of scale (Armadillo Marine Consultants, 2005).

From vessels that used to carry 226 TEU's in 1957, there are today vessels that can carry 6600 TEUs. One of the world's largest shipping companies, Maersk Sealand, has over 20 vessels that can carry over 6000 TEUs. Other lines having over 6000 TEU vessels in their fleet are Mediterranean Shipping Company, P&O Nedloyd Hanjin, Hyundai Merchant Marine, and CMA-CGM. The world fleet at present consists of over 32 vessels of 6000 TEUs, with another 40 on the order books and many more to follow (Armadillo Marine Consultants, 2005). In order to accommodate these large ships, ports are also developing large expansion plans. For instance, the port of Singapore is already getting ready to increase its draft to 21 m. With such large volumes, it is likely that competition among ports will be keen. They necessitate not only a deeper channel, but also higher productivity levels, bigger cranes that have a reach of more than 25 TEUs across and other improved handling equipment besides having modern information and communication systems. At present a productivity level of around 75-100 TEUs per hour is required to keep a 6000 TEU vessel on schedule. The leading ports are gearing up to increase productivity levels to 200 moves per hour to

turn around an 8000 TEU vessel in less than 24 hours (Armadillo Marine Consultants, 2005).

### **STEVEDORING IN GHANA**

Stevedoring traditionally means the loading and discharging of cargo from vessels. According to Ghana Association of Stevedoring Companies (GASCO, 2004), in Ghana this meaning has been redefined to include the stacking of cargo in the sheds/warehouses or open storage areas. The redefinition of stevedoring was effected in 1997 by the Ghana Ports and Harbours Authority (GPHA) to include some aspects of shore handling activities to the stevedoring operations. Prior to this, stevedoring activities ended on the quays, that is, stevedoring companies discharged cargoes from vessels on to the quays and that was supposed to end their duty. The cargo handling company, which was then the GPHA, continued from where the stevedoring companies left off by transferring the cargo to the warehouse. The GPHA was also responsible for warehousing and the delivery of the cargo to the consignees (GASCO, 2004).

Stevedoring as was practiced in Ghanaian ports (Tema and Takoradi) was the preserve of the Ghana Cargo Handling Company (GCHC) until they were joined by Atlantic Port Service (APS) who were licensed to operate in 1970 and later, Speedline Stevedore Company (SSC) in 1977, both of which were private companies. According to the Ghana Ports Handbook 2005-2006, a government initiative to privatise Ghana's port operations led the Ghana Ports and Harbours Authority (GPHA) to adopt a landlord approach in order to present a more efficient and competitive service to customers. In connection

with this, the GPHA privatised stevedoring activities at the ports. Table 1 shows the private stevedore companies licensed to operate and the quotas allotted to them by the GPHA in port operations.

**Table 1: Shareholdings of Private Stevedoring Companies in Ghana.**

| Private Stevedoring Company       | Percentage Share Holding |
|-----------------------------------|--------------------------|
| Atlantic Ports Services (APS)     | 15                       |
| Speedline Stevedore Company (SSC) | 10                       |
| Golden Gate Services (GGS)        | 10                       |
| Dashwood Stevedore Agency (DSA)   | 5                        |
| Odart Stevedore Company (OSC)     | 10                       |
| Carl Tiedemann Stevedore (CTS)    | 10                       |
| Fountain View Stevedore (FVS)     | 5                        |
| Express Maritime Services (EMS)   | 10                       |

Source: GASCO (2004)

The Ghana Ports and Harbours Authority has a 25 per cent shareholding in stevedoring activities at the Tema Port. Due to some legal issues and a court action taken, Express Maritime Service (EMS) was split into Advanced Stevedore Company (ASC) with 5 per cent shares and Gemini Maritime Services (GMS) with the other 5 per cent share holding.

The work allocation system used at the port was interrupted for about a month in January 2004 and a free for all system introduced where all stevedores were allowed to market their services and handle any quantity of trade. This was found to be inappropriate and ineffective and the port authority

quickly reverted to the allocation system. The allocation system is the equitable allocation of vessels to stevedores based on their respective quotas as per their licenses (GASCO, 2004). Advantages of the quota system include the provision of a stable environment for business planning and investments. Under this system, projections for incomes and expenditures are predictable based on the company's quota. It also ensures that cargo work is equitably distributed amongst the stevedores. The stevedoring companies have purchased equipment according to their respective quotas or volume of work. It is however seen by its critics (mainly the shipping lines), as inefficient because some operators tend to under-perform and unduly delay their vessels. It also deprives them of their freedom to choose which company to stevedore their cargo.

The free market system on the other hand is a global practise and is a requirement for modern global business (GASCO 2004). The principle of globalisation is strongly against monopolistic practices and cartels hence, the quest for the free market by the shipping lines which they see as being in line with global trends in the port and shipping industry. The main advantages of this system as propagated by the shipping lines are high productivity and reduced tariff. The failure at its first introduction in Ghana could be attributed to its improper implementation. Some stevedores merely used low tariffs to attract vessels but could not perform efficiently. This is because some stevedoring companies were contracted by several container lines due to their low tariffs and in the end could not handle the traffic and thus unduly delayed the vessels.

## **Stevedoring Companies and Port and National Development**

According to the Ghana Association of Stevedoring Companies (GASCO, 2004), stevedoring companies continue to make significant contributions to port and national development through the payment of royalties to the ports, employment creation and the payments of taxes to the state.

Payments of royalties were instituted by the port authority to ensure that stevedoring companies make a direct contribution towards port construction and development. Initially, the royalty was \$1.10 per tonne of cargo handled. However in 2002, the royalty level was reviewed and was rather based on gross earnings of the stevedoring companies and not the tonnage handled. This made the base larger because the gross earnings included other revenues such as delays and overtime of staff which was hitherto not charged. Current royalties is said to be very high and is adversely affecting the stevedoring companies. According to the GASCO report, in 2002 and 2003, the stevedoring companies paid a total of \$ 12,018,087 , an amount substantial enough to qualify them as partners in port development (GASCO, 2004).

The stevedoring companies employ about 600 permanent workers and hundreds of casual dock workers from the ports on daily basis. The stevedoring companies also pay substantial taxes to the government in the form of company taxes. In 2001 and 2002, the Atlantic Port Service paid a total of ₵3,140,789,000 and ₵3,285,473,000 respectively in taxes to the government while Speedline Stevedoring Company paid ₵2,021,705,000 and ₵2,523,058,000 respectively in taxes (GASCO, 2004).

## **Tema Port Container Terminal**

In 2002, the sector Minister for Roads and Transport, who had oversight responsibilities for ports, announced that the Ghana Port Services Consortium (GPSC) made up of seven major players in the international shipping industry was to invest 200 million dollars in development projects at the Tema Port (West African Links, 2004). The project involved the extension and development of Quay Two into a modern container terminal. According to the Minister, the Ghana Ports and Harbours Authority was to construct the first phase of the project which was to take a period of 18 months while the Ghana Port Services Consortium (GPSC) was to engage in further development and management of the facility. The Consortium consisted of AP Moeller Terminals, Bathgate Management Limited, Beckett Rankine Partnership, Bouygues Travaux Publics, Mersey Docks and Harbours Company, SDV Ghana Limited (Bollere Group) and Sutton Group (Kumah and Iddrisu, 2002).

In 2004, the GPHA purchased three new 45 tonnes (T) reach stackers at a cost of ₵11.3 billion to facilitate the lifting of containers to enhance work at the Tema port. The port now offers nine 45T and thirteen 40T-reach stackers. The equipment, purchased from the port's internally generated fund, was imported from SMV Lift Trucks of Sweden through PASICO Ghana. According to the Director of Tema Port, the purchase of the equipment became necessary due to an increase in container cargo and as a response to complaints about delays in services at the port.

From 2002 to date, the GPHA has spent 60 million dollars on the first phase while \$35million has been earmarked for phase two which will be financed by the Consortium. The GPHA has also acquired Gantry Cranes



worth \$16 million and this will be transferred to the Consortium who will in turn pay an additional royalty of 5 million US dollars, bringing the Consortiums total capital investment to 56 million dollars (Nkrumah, 2005:26).

Currently, the Consortium comprises GPHA with 30 per cent shares and AP Moeller Terminals, SDV (Bolore Group), Bouygues and Satton which together own 70 per cent shares (Gibbah, 2005:3). The Consortium is tasked to manage the container terminal for and on behalf of the GPHA. The actual construction of the container terminal is to be done by the GPHA, which should also provide the terminal with the necessary equipment while the consortium provides the management, expertise and operate the terminal while paying royalties to the GPHA. This agreement has already been signed.

The nine stevedoring companies, Atlantic Ports Services (APS), Advance Stevedores (ASC), Carl Tiedemann Services (CTS), Dashwood Stevedores (DSA), Golden Gate Services (GGS), Fountain View Limited (FVS), Gemini Maritime Services (GMS), Odart Stevedoring Co. Limited (OSC) and Speedline Stevedoring Company (SSC) Limited are all local Ghanaian businesses with none belonging to the Ghana Port Services Consortium (GPSC). According to the terms of the agreement signed, all containerised cargo beyond 50 boxes or containers are to be handled at the terminus by the Consortium. Since almost all containers that the shipping lines bring in are normally more than 50 boxes it implies that all containerised cargo is to be handled by the Consortium. This is anticipated by the stevedoring companies to lead to 70 per cent reduction in their operations. It is also likely to lead to job losses in the stevedoring companies.

## STATEMENT OF THE PROBLEM

Throughout the 1960s and part of the 1970s, the container revolution was primarily confined to sea transportation and port operations with very little interaction between ocean and land transportation (Hoyle and Knowles, 1992). Relatively very few containers penetrated the interior of continents. By the early 1990s, however, containerisation was considered a more mature transport system. Most ports around the world including Ghana expanded their container operations. In 2002 for instance, the Tema Port handled 230,000 TEU and by October 2003 the port had handled up to 252,000 TEU. In 2002 the port handled 6.8 million tonnes of cargo through the port rising to 7.39 million tonnes in 2003 and 9.62 million in 2004 (West African Links, 2004; GPHA, 2005).

Internationally for the shipping industry, turnaround time is a premium issue. This concern has been manifested in the technological change introduced from the 1970s; that is, the proliferation of containers replacing break-bulk (palletised, bagged and loose items) cargo and the consequent global expansion of container shipping.

Since port terminals occupy a strategic position, both as key control points in the logistics chain and in terms of their potential impact on national competitiveness, stabilised industrial relations is of great importance in this sector. Technological changes, most dramatically seen with the introduction of containerisation in the 1970s and 1980s, appear driven through an effort aimed at reducing stevedoring labour to a relatively small activity in the overall movement of cargo in the harbour (Hemson 1996: 6). Moreover, the process of containerisation has fundamentally changed the built environment of port

infrastructure and the inherently related labour process and wider consumption and reproduction patterns of dock workers. To Hemson (1996), it is an understatement to say that the advent of containerisation in the 1970s adversely affected the stevedoring industry. The focus of the stevedoring labour process shifted from labour-intensive loading/unloading vessels, which employed large numbers, to capital-intensive machinery based on the shore. This process, coupled with the mechanisation of warehousing and transport from docks to final destination further compounded the job losses in the ports (Hemson 1996:2).

A dedicated container terminal which is a berth with specialised container handling and container parking facilities is essential to a port for higher economic efficiency. According to Bird (1971), one of the problems for port authorities is to decide whether or not this is to be used exclusively by one operator or be a common user facility. Operators of through container services will naturally prefer to have exclusive rights where there is sufficient traffic and where it is easy to control the container flows and programme the service.

One of the objectives of port privatisation is to provide customers with a more efficient and competitive service (Ghana Ports Handbook 2005: 39) and thereby reduce port cost. However, leaving the port to a consortium to operate may breed monopolistic or cartel practices. For example, Ghana is expected to lose over US\$ 32.3 million a year in revenue which should have hitherto accrue to the GPHA as a result of the concession granted to the consortium (Nkrumah, 2005). In 2004 the estimated revenue generated for container handling amounted to US\$ 32.3m (Ghana Ports Handbook 2005: 39). A conservative projection of an annual rise in container traffic of 5 per

cent implies that revenue accruing to the operators (Consortium) would accordingly increase.

A simple pro-rata revenue sharing scheme based on the current shareholding implies that the Consortium would be earning 70 per cent of the revenue from the container terminal less royalties and other deductions such as rent from lease agreements under the present arrangement. Such practices could become detrimental to the achievements of the said objectives which include increased private sector participation and competition in the ports. It is also likely that the practice could lead to large job losses among workers in the stevedoring companies with the re-routing of more than half of the transshipment and transit cargo to other ports by shipping lines that do not owe allegiance to the Consortium. This study therefore sought to investigate the effects of the takeover of container terminal operations on the stevedoring industry.

#### **OBJECTIVES OF THE STUDY**

The main objective of this study was to assess the anticipated effects of the Consortium's container operations in the Port of Tema on stevedoring in Ghana.

The specific objectives were to:

1. Identify the type of structural changes in Tema Port as a result of containerisation;
2. Assess the challenges in the stevedoring industry;
3. identify sources of job losses in the stevedoring industry as a result of the Consortium takeover;

4. Assess the capacity of stevedoring companies for continuous container handling; and
5. Assess the impact of containerisation on labour activities.

### **ASSUMPTIONS**

The study was based on the assumption that:

1. The take-over of operations of the local stevedoring companies by the Consortium would lead to job losses.
2. Containerisation has led to a decrease in the market power of labour.
3. The local stevedoring companies have the requisite capacity for continuous container handling.
4. Substantial structural changes have occurred in the Port as a result of containerisation.

### **RATIONALE FOR THE STUDY**

In an era of rapidly diminishing impediments to the free flow of capital, goods, technology and services between nations, trans-national commercial activity has become extremely important to most national economies. New frontiers are being broken as raw materials and manufactured products move more freely between nations which have previously shared little in common. Certainly, governmental initiatives designed to eliminate trade barriers are responsible for much of this growth. Tariff walls are crumbling and the world economy is prospering. The interdependencies that flourish between members of the world community as a

result of bilateral and multilateral trade agreements enhance the possibility of achieving long-term political stability, economic growth, and global peace. Innovations in the field of transportation have made possible increased commercial activity, promoting greater interdependency between nations. Of the technological innovations, the "container revolution" is perhaps the most significant, for it has done more to foster the growth of international trade than any other single intermodal breakthrough.

The Ghana Ports and Harbours Authority have taken steps to improve the quality of services rendered at the Tema Port through the on-going port expansion project involving the construction of a modern container terminal with ship to shore gantry cranes and rubber-tyred gantries that will further quicken the turnaround time of vessels and cargo in the ports (Alorsor, 2003). The appointment of a Ghana Port Services Consortium (GPSC) to own and manage the container terminal currently under construction at Tema under a 20-year build, operate and transfer (BOT) agreement is anticipated by a cross section of key participants in the shipping industry such as the Ghana Association of Stevedoring Companies (GASCO) and the non-participating shipping lines to affect their operations. It is therefore imperative to conduct research to assess the effects of the Consortium takeover of the port operations on the activities of stevedoring companies in the port.

The study will also contribute to existing academic knowledge in its comparison of the theoretical concept of private management of transport facilities to empirical evidence. The findings will contribute to future research by providing information that can be used as a baseline for future academic research in transport and logistics and other related fields of study. Policy

makers will perhaps benefit most from the study. This is because the findings would be useful in the development of guidelines for setting up public-private partnerships and management of transport facilities.

## **STUDY AREA**

Tema city and port lies along the coast of the Gulf of Guinea (Atlantic Ocean), 29 km east of Accra. The city is populated by people of various ethnic backgrounds even though the indigenous people are mainly Gas. The 2000 Population and Housing Census returned a population of 141,479 for Tema, made up of 68,467 males and 73,012 females. This is an increase over the 1970 population of 60,767 (Ghana Statistical Service, 2002a-c).

Tema Port itself is the bigger of the two sea ports in Ghana. It has a water-enclosed area of 166 hectares. Opened formally in 1962, Tema harbour is Africa's largest man-made harbour in terms of its total area. The port was opened as part of Government's drive to boost the country's industrial development especially in the area of port facilities for a major aluminium smelter (Volta Aluminium Company Limited) and to relieve the pressure on the existing port of Takoradi located approximately 260 miles from the capital city of Accra. It is currently the largest seaport in Ghana and has over the years evolved into a large multipurpose complex with its 12 berths located on two quays and various specialised harbours and terminals. There are 5 km of breakwaters, 12 deepwater berths, an oil-tanker berth, and a dockyard, warehouses, and transit sheds. The port's container yard is capable of holding over 8,000 TEUs at any given time. There are 290 reefer points available. A

separate fishing harbour with cold-storage and marketing facilities is east of the lee breakwater as shown in figure 1.

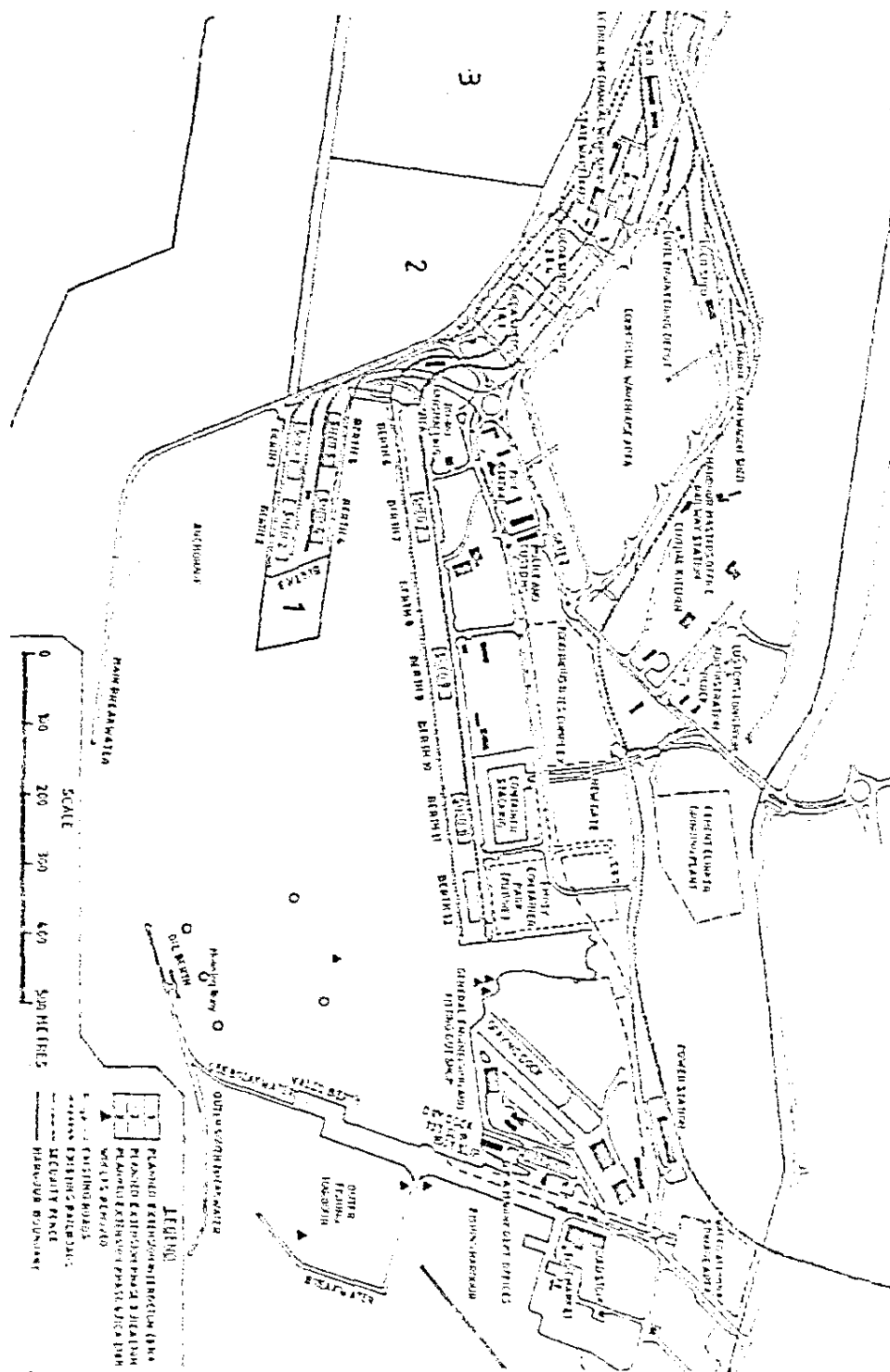


Figure 1. Port of Tema expansion project

Source: Ghana ports handbook (2005)



The Port of Tema is more than a mere loading or unloading place for goods. It is also an international traffic junction, where goods are transhipped to and from landlocked countries such as Burkina Faso, Mali and Niger. About 40 per cent of the country's chief agricultural export, cocoa, is shipped from Tema Port of which about 75 per cent is containerised. The port handled 6.3 million tonnes of cargo in 2000, nearly three quarters of total sea-borne trade for Ghana, whilst the export was little over half of sea-borne exports. For 2001, this figure dropped slightly to 6.14 million tonnes. Of this, 5.07 million tonnes was imports and 783,000 tonnes exports and 283,000 tonnes transit cargo. Tema also has a wide range of industrial and commercial companies that produce or handle among others petroleum products, cement, food items, iron and steel, aluminium products and textiles (Yeboah and Annancy, 1999).

The government acquired 166 square km (64 square miles) of land north of the harbour and entrusted it to the Tema Development Corporation in 1952. The "New Town" that was subsequently built on the site was planned as an industrial-residential complex. There was a large influx of population beginning in the 1960s owing to the new employment opportunities, but the corporation was unable to construct housing and provide other services to meet the needs of the immigrants. The result was the creation of Ashiaman near Tema.

### **Tema's Industrial Identity**

Tema became the backbone of Ghana's industrial activities after independence in 1957. It has been one of the main facilitators of Ghana's industrial drive. According to Yeboah and Annancy (1999), although Tema is

still the industrial hub of the country, the nature of the industry in Tema has changed; it has become private-sector driven, with very few of the companies still in government hands.

Towards the end of the 1970s, Ghana's industrial growth, once one of the most robust in the West African sub-region began to decline. Tema, making up almost half of the industrial output, led the industrial spiral. Companies such as Ghana Textile Printing were taken over by the workers. The quality of its products, the wax print, declined. Tema Textile absorbed the Ghana Textile Manufacturing Company. Eveready Ghana Ltd., producers of dry cell batteries, folded up. Lever brothers, a division of the Unilever group and producers of detergents, food and other products could not cope with the high production demands. Tema Steel Works which forms part of the dissolved Ghana Industrial Holding Company (GIHOC) conglomerate did not operate effectively either (Yeboah and Annancy, 1999).

The Volta Aluminium Company (VALCO), a division of Kaiser Aluminium also suffered serious production crisis when its plant experienced a first time shut down as a result of a nation wide energy crisis. The Tema Food Complex Corporation, which was Ghana's largest food processing plant, was equally affected during this period as a result of managerial crisis it was going through. The Tema Development Corporation (TDC), which was a developer of residential and industrial facilities in the Tema municipality, had its subsidy from the government withdrawn and had to depend on its own resources to carry out its programmes.

The fishing industry, headquartered at Tema which employed a quarter of a million of Tema inhabitants at the time also suffered with most of the

indigenous companies either folding up or looking elsewhere for new investment (Yeboah and Annancy,1999). Notable among them was the Mankoadze Fisheries Limited, which had a cannery and many fishing vessels. Though the Mankoadze fishing venture later resurfaced in the Gambia, its huge investments in Ghana were relocated. Its cannery plant in Ghana was bought by the J. Heinz group, which manages Star Kist. Today the fishing industry is mainly operated by the private sector.

The PSC Shipyard, which was formally known as the Tema Shipyard and Dry docks, was unable to service vessels which were calling at the port of Tema. Its inability to play its role as a service provider led to the loss of substantial amounts of foreign currency until its privatisation.

Some of the companies in Tema clearly sent out distress signals that Tema could no longer be the industrial might of the country. It was clearly evident that Ghana's industrial drive was showing signs of fatigue and the problem was mainly attributed to financial constraints, inability to compete, lack of raw material and lack of managerial direction (Yeboah and Annancy, 1999). During the same period when some companies were struggling to survive, new companies were set up. One of such companies is Aluminium Works (ALUWORKS), which is now the largest primary aluminium processing plant in the country. Wahome Steel, one of the largest steel manufacturing plants in West Africa was also established in Tema by Taiwanese and Ghanaian investors. Other business enterprises were also established around the same period.

In an attempt to save these industries the government divested some of the companies through its Divestiture Implementation Committee. Tema Food

Complex was sold and is now known as Ghana Agro Foods Company Ltd. Similarly, Tema Steel Works was taken over by an Indian business concern, now known as Tema Steel Company Ltd. Shipyard and Dry docks was also taken over by Malaysian investors. Tema Lube Oil which produces lubricants for all the oil-marketing companies in the country was also placed on the divestiture list alongside Cocoa Processing Company and Tema Oil Refinery. After a period of decline, Tema is re-emerging almost divested of state-run corporations. It is likely that over the long term it will remain under private sector control (Yeboah and Annancy, 1999).

## CHAPTER 2

### LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

#### Introduction

Transport is part of the daily rhythm of life. Transport industries exist to provide for the movement of people and goods, and for the provision and distribution of services (Hoyle and Knowles, 1992). Traditionally one of the main approaches to transport has been through the examination of the various types or means of movement in order to identify their particular technical characteristics, their cost structure, their historical evolutions and their regional growth patterns (Hurst, 1974).

Transport facilities are generally considered to be one of the most important factors influencing the pattern of economic activities in any area and the improvements in this field are often recommended as one way of tackling the problems of the underdeveloped countries of the world (O'Connor 1965:1).

Kilian and Dodson (1995) note that technological transformation is the primary driving force for change (1995:12) and this is confirmed by Hayuth (Hoyle and Knowles, 1992) that containerisation greatly facilitated the operation, management and logistics of conventional ocean-borne, general cargo and liner trading.

Conformity and convergence are expected outcomes of globalisation. Companies serving global markets adopt standardised operational and marketing procedures that allow them to carry on business in disparate regions

across ocean space, therefore, the container shipping industry is responding to globalisation in a classic fashion. On the land, constraints exist which limit the degree of conformity and lead to less convergence in industry operations, and even specialisation of those operations depending on local and regional characteristics (Dicken, 1998). Likewise, it is impossible to discuss stevedoring in this period without discussing the material consequences of containerisation, and how through a process akin to the broad term globalisation, local markets were undermined and exploited in favour of international concerns.

### **CONTAINERISATION AND THE STEVEDORING INDUSTRY**

For most of the twentieth century before containerisation there were three ways in which cargo was transported. Oil and petroleum products were transported by tankers and involved little or no labour power. Bulk products included coal and were also not very labour intensive. All other cargo was transported as 'break-bulk'. Break-bulk cargo was loosely stowed in the hold of ships and was transported in bags, drums, boxes or simply as loose cargo and included anything from mail to motor cars (Dubbeld, 2001).

The function of stevedoring workers was to go onto the ships and load and off-load break-bulk cargo. Throughout the world stevedores were organized as workers in gangs. A gang was a team of workers, with a supervisor or foreman, ranging in size from 8 to 16 depending on the type of cargo handled. Until the early 1970s, most of the companies that organized and employed stevedores were owned by the major shipping lines. By having control over these companies, the shipping lines ensured that the turnover time

of loading and off-loading or unloading cargo, was controlled by them and that a stevedoring company could not set rates independent of the collective interests (Jones 1997:14).

In the early 1970s, a fundamental change occurred in the way in which cargo was handled. Instead of cargo being transported loosely in the hold of a ship and stored in the ports, most of the break-bulk cargo was containerised, that is, stored in containers that could be loaded on to ships and transported from one area to another, without it having to be manually stored on the ship or in a warehouse. Furthermore, containers were lifted off ships by massive cranes on the shore instead of having to be physically carried to and from the land. There were also new kinds of ships introduced called Roll-on/Roll-off, meaning that containers could be slid off the ship. Containerisation thus had two important effects; first, it meant a decline in the stevedoring industry (Dubbeld, 2001). This is because the amount of cargo stored as break-bulk declined substantially. Secondly, the nature of port infrastructure itself changed. Because ships had to change in order to accommodate transporting huge containers, this process of docking vessels became different. Furthermore, warehouses and previously important storage facilities gave way to container terminals. The port infrastructure required an initially large investment in these new facilities. As a result of these two changes, the port authority (controlling all shore based activity) became much more powerful in relation to the stevedoring companies (Dubbeld, 2001).

In the past, although ports looked similar, they were able to maintain a variety of different physical infrastructure. With containerisation, a standardization of ports occurred. If ports did not have facilities to

accommodate containers, the cargo could not be landed there, and ships would inevitably go elsewhere. It is important to realize that this process reflects globalization, both in a standardization of facilities and in the flexibility of operation. The investment in containers has meant that stevedoring workers have had to be content with less lucrative cargos and their numbers have dropped substantially. In addition, ship based technological improvements have meant that the number of stevedores that need to load a ship itself has decreased.

### **THE EFFECT OF CONTAINERISATION ON PORTS**

Seaports, an unavoidable subsystem within the transportation system, are crucial in international as well as domestic shipping because they facilitate the transfer of cargo between the sea-mode and the inland-mode of cargo movements. Being a component of the transportation system, ports have always had to make changes in their modus operandi to accommodate the bigger changes within the parent system. Thus, traditionally, ports play a reactive role in which continued competitive advantage over rivals necessitates faster adaptation of new technology which in turn requires higher and higher capital commitments. Indeed, this was what containerization thrust upon ports (Kumar, 2002).

Containerisation provided the possibility of consolidating cargo at a handful of ports along arterial trade routes. This was essential for the liner operators to achieve economies of size. Calling only at those ports which offer large volumes and the best technology facilitated the rapid turnaround of their expensive container vessels. The possibility of restricting mother vessel ports



of call to only the major load centre ports became a principal threat for other ports that would have been relegated to an inferior status and served only by a network of feeder vessels. In the race for survival which ensued, large investments were made by all ports to cope with the demand for rapid cargo movements. While the load centre nightmare of ports did not materialize, at least to the magnitude that was expected, what really resulted was the intensification of competition between ports in the same region (all of whom had invested in competing technology and infrastructure to attract the deep-sea liner operators). Thus, intra-regional port competition intensified subsequent to the introduction of containerisation. Ironically, as a direct consequence, ports began to pursue aggressive expansion programmes designed to enhance their capabilities, even when there was a decline in their overall market share. Examples of this are the North Atlantic ports between New York and Charleston, all of which are still involved in increasing their terminal capacity (Kumar, 2002).

According to Stoner (1990), similar large scale terminal enhancement programmes are going on across the Atlantic in Europe. Some major upgrading projects currently underway are at Le Havre (\$2.5 billion), Zeebrugge (a new container terminal of 500,000 TEUs per annum), Antwerp (development of the Hessian Scheld Container facility), Rotterdam (a new 500,000 TEU container facility at its Rhine North Sea outlet), and the German ports of Hamburg, Bremen and Bremerhaven (to recapture their traditional hinterland markets in Eastern Europe). In the UK, Thames port on the Isle of Grain has emerged as the newest container port. These radical changes necessitate proactive strategic planning and aggressive marketing in addition

to traditional waterfront innovations by ports. As part of that, ports have diversified into non-traditional areas and responsibilities. Every conceivable scheme is being implemented by ports to lure liner operators and thus maintain market share and profitability in their operations. Examples of value added options incorporated on the dockside include fast container-handling cranes, warehousing and distribution services, and quick cargo clearance through improved documentation process and computerisation. Implementation of information systems and terminal automation to facilitate equipment identification has further enhanced the competitive status of major ports. All major container ports are investing huge sums of money in this area to carve their own niche (Kumar, 2002).

#### **CONTAINERISATION AND LABOUR ACTIVITIES**

Internationally for the shipping industry, increasing turn around time is the premium issue for shippers, importers/exporters and governments. These pressures were manifest with the technological change introduced from the 1970s through the proliferation of containers replacing break-bulk (palletised, bagged and loose items) cargoes and the consequent global expansion of container shipping.

Since port terminals occupy a strategic position, both as key control points in the logistics chain and in terms of their potential impact on national competitiveness, stabilised industrial relations is of great importance in this sector. Technological change, most dramatically seen with the introduction of containerisation in the 1970s-1980s, appears driven through the global imperative aimed at reducing stevedoring labour to a relatively small activity

in the overall movement of cargo in the harbour (Hemson 1996:6). In turn, the process of containerisation was to fundamentally change the built environment of port infrastructure and the inherently related labour process and wider consumption and reproduction patterns of dock workers and their families throughout the world. Therefore, it is an understatement to say that the advent of containerisation in the 1970s adversely affected the stevedoring industry. The focus of the stevedoring labour process shifted from labour-intensive loading/ unloading vessels, which employed large numbers, to capital-intensive machinery based on the shore. This process was coupled with the mechanisation of warehousing and transport from docks to final destination (Hemson 1996: 2).

However, as a world-wide phenomenon, containerisation also generally led to a process where retrenchments and the corresponding rise in militancy amongst dock workers was met by governments aiming to intervene to stabilise industrial relations in this essential link to international trade. And despite the onset of globally driven technological change in the industry, its adaptation has not been a uni-linear process. Rather, the process of the introduction of new technology in itself has meant that workers operating advanced equipment have had greater bargaining power.

Hemson (1996:3) argues that there have been two historical tendencies in dock work internationally in the adaptation to containerisation. Firstly, the formation of national unions for dock workers was often accompanied by the intervention of the state to provide a statutory institutional framework to resolve the contested interests of workers and employers. The combination of their strategic importance with the peculiarly casual nature of employment led

governments to conclude that intervention was necessary to both ensure reasonable working conditions and secure the docks from the periodic paralysis of strike action. Secondly, the trend towards rapid technological change led to an enormous reduction in the labour force. According to Hemson (1996), while the first process has been national in its orbit, the second propelled by global imperatives, to a large extent is independent of national control.

Tilly and Tilly (1998) argue that although containerised cargo-handling has drastically changed routines and productivity on the waterfront, with a consequent decline in the total number of workers, it had actually sustained or enhanced some of the conditions that favour workers' collective action which includes location in forms with substantial market power, high capital-labour ratios, extensive worker discretionary control over firm capital, high impact of workers performance on firm's aggregate performance, and institutions confirming worker rights. The carryover of reputations and relations from the days of conventional handwork has given longshoremen additional advantages in asserting their rights (Tilly and Tilly 1998:251). Waterman (1990) argues that as a consequence of this, internationally, transport workers have an increasingly strategic position: "In terms of capital accumulation as a whole, transportation is the weak link, representing a dead period between investment and realisation. The dead period for capital accumulation also represents a weak link in the control of labour" (1990:15).

## Problems of casual labour

Historically ports have relied on casual labourers, irrespective of where in the world they are located. Because the quantities of work vary daily, it has been profitable for ports to employ most of the labourers by the day, rather than permanently or on fixed contract. Stevedoring work has also been dangerous, unreliable, and not particularly financially rewarding for workers and they have often chosen to be casuals rather than permanent workers. Casual labour is a feature of emerging industries that are still struggling to understand the amounts of regular labour needed. In the colonial context, using casual labourers was seen to be very lucrative, since no benefits needed to be paid to workers, and employers could release workers without much hassle or extra cost.

In some cases workers chose to be casual workers, in others workers were casual by virtue of the fact that they could not find regular employment. Workers who chose to be casual often had another potential source of income in rural agriculture, and used jobs in urban centres to supplement their incomes. The advantages of being casual were an increased mobility between workplaces and the structural ability to constantly search and find better conditions of employment. Workers would generally choose to be casual only when there was an oversupply of work and an undersupply of workers, and when they had an alternative source of income. In a study of Mozambican migrants in the second half of the nineteenth century, Harries (1994) has shown that unrestricted labour mobility was used as a bargaining tool for higher wages and better conditions.

In Durban in the 1950s casual stevedores still had links with the land, were not tied to particular stevedoring companies and could move freely between these companies, depending on differing requirements on any particular day. But there were significant social problems that arose from casual labour. The ability to employ casual labour was often as a result of an oversupply of unemployed people in a particular town or city. Casual labourers were also not responsible industrial workers and gained little on a long-term basis from the success of a business venture. Casual dock labour employed to offload cargo from ships, often stole goods off those ships. A large number of unemployed poor people were seen to threaten the social fabric of the society in which they lived; they were men without regular work or masters. Jones (1971:11) did a study of casual labourers in London in the second half of the nineteenth century and observed that casual labour from the residuum was seen to be a problem by conservatives, liberals and socialists alike. He said these people were psychologically characterized as those 'with weak character and a poor physique' very morally dangerous to society and needed to be eradicated.

In Mombassa, Cooper (1982) described the transformation of work and showed how casual labourers became a threat to the functioning of the economy. Because workers were not entirely dependent on employment in the city for their livelihood, they only worked whenever it suited them. When demands on their labour power became too strenuous, they were able to organize and strike, crippling production. If the function of casual labour in the British colonies had been to prevent labour organization and militancy by circulating labour and not making them dependent on the work, it had failed.

Casual workers were able to become militant and to materially disrupt colonial extraction. The solution for the British was to re-make the labour force, giving them permanence, decent wages and a stake in the success of the industry.

## **CONTAINERISATION AND THE LINER MARKETS**

The unitization of liner cargo by using International Standards Organisation (ISO) containers opened up a Pandora's Box of opportunities for liner operators. With the elimination of the legal impediments to intermodalism, human ingenuity began to overcome the traditional boundaries of liner service which until then did not extend beyond the immediate vicinity of ports. Thus, with the arrival of intermodalism aided by the container revolution, a new cycle of innovation began in liner shipping (Shashikumar, 1987).

Though intermodal services were initiated as a marketing concept to attract customers, it has changed from being a marketing ploy to that of an accepted component of the liner transportation package. Most of the major liner operators have expanded their services into all aspects of global distribution and logistics support packages through horizontal and vertical mergers and acquisitions. Furthermore, most major operators have entered into partnership agreements with each other. Thus, there has been a concentration of power, through ownership as well as through partnership, among those operators who have differentiated themselves into the upper echelons of contemporary liner services. There has also evolved a second tier of operators who rely primarily for providing intermodal services on strategic alliances

with operators of inland modes of transportation. All the other operators who continue to provide conventional port-to-port liner services now constitute the third and the bottom tier.

From the standpoint of liner operators, the corresponding change due to intermodalism initiated by the container revolution was the introduction of inter-conference competition. Such competition, along with the intra-conference pricing competition mandated by the 1984 Shipping Act in the US liner markets (Shashikumar, 1987) appears to have transformed the competitive status quo (desired typically by the liner conferences) into a more dynamic environment.

The evolution of a new breed of well-financed independent operators has been one of the most significant developments of the container era. The use of a few high capacity, fast container vessels, manned by cheap crews from developing countries and calling at a limited number of ports enabled these operators to provide quality liner services comparable with those of conferences at lower freight rates. During the intermodal era, some of these operators have consolidated their position vis-a-vis the conferences. Either through direct ownership or through strategic alliances, they too provide seamless intermodal services though the sophistication of their intermodal capability may not match that of the more established conference operators. Thus, in the intermodal era, the axiomatic service-competition advantage of liner conferences over independents has in some cases lost its relevance (Shashikumar, 1987).

While containerisation and intermodalism have caused significant structural changes in liner shipping, what has not changed is the profitability of



liner operators. The more aggressive liner operators invested in state-of-the-art intermodal systems during the 1980s with the expectation of better returns on their investments. However, as their intermodal systems matured, rather than demonstrating increased profitability, these aggressive liner operators have been posting weaker financial performances.

### **Intermodal strategies of liner operators**

Historically, it has been argued that it was the advent of liner shipping in the early nineteenth century which eliminated the need for integrating merchanting and deep-sea shipping (Casson, 1986). In 1984, Casson studied 28 shipping companies operating in or controlled from the United Kingdom and found that a significant number of the shipping companies were involved in agency services, freight forwarding, stevedoring, warehousing, providing port facilities, road haulage and distribution. He credited the above developments to the operational flexibility introduced through containerisation, and emphasized that containerisation strengthened the incentive to integrate shipping with other modes of transportation and port facilities. The advent of containers on international trade routes certainly contributed to the natural leadership role of deep-sea liners (Dempsey, 2001). The use of large container vessels gave them the necessary economies of scale in their deep-sea shipping movements without unduly prolonging time in port. It also necessitated the co-ordination of ship arrival times with train schedules and their expeditious inland movement. The traditional nature of liner conferences, that of encouraging service competition rather than price competition, made it imperative that intermodalism be a competitive essential

rather than a mere option. The modus operandi for such extension of services was initially through cooperation with domestic operators. As cargo volumes reached a critical level, deep-sea liner operators virtually began to take over the operations of their intermodal associates with the twin goals of expanding their area of control and reducing costs.

Today, the point has been reached where keeping out of some form of control over the inland distribution system of liners is strategically unwise. Thus, the likelihood of rival production firms integrating vertically into shipping activities for competitive purposes can be modified to apply to contemporary deep-sea liner operators. When one liner operator establishes itself as a multimodal entity, competing firms are compelled to undertake similar operations (Kindleberger, 1984). In addition to the acquisition of inland transportation companies, other vertical integration opportunities for liner shipping companies include acquiring warehouse and distribution centres, stevedoring, freight forwarders and custom-house brokers. The transition of deep-sea liner operators into total transportation entities is considered to be one of the most exciting developments of the intermodal revolution (McKenzie et al., 1990). Deep-sea liner operators tend to follow three distinct strategies in providing intermodal services.

The first strategy is direct ownership of inland facilities. This strategy involves the acquisition of intermodal partners and their equipment, and (probably) a resulting hierarchical organizational structure. While it gives complete control of the cargo movement and might add synergy to the integrated cargo flow, it requires high capital commitments. At the same time, the financial risks involved in such ventures are also high. An example of this

strategy is the British P&O Group's acquisition of the German Rhenania Group (Porter 1989:17)

The second strategy involves strategic alliance. This strategy enables the liner operator to offer the same level of services as any other intermodal entity but without the high level of financial investment and risk associated typically with vertical integration; this makes it appealing to all intermodal operators, big and small. For the smaller liner operators, this may indeed be the only available intermodal option. Another virtue of strategic alliance is the probability of synergism occurring in such relationships. Capitalising on the well established network and goodwill of a local land-based transportation entity provides immediate name recognition and identity for a foreign liner operator. There are several examples of strategic alliances in the intermodal industry not least Hapag-Lloyd, the large German deep-sea liner operator. Following a rather conservative operating strategy, this container operator has stayed away from outright acquisitions of land-side operations and emphasises partnerships with efficient third parties who can offer guaranteed levels of services to facilitate door-to-door movements (Boyes 1990: 31).

The third strategy, used by most operators at least in a limited sense, is the mixture of ownership and partnership (Kumar, 2002). Several intermediate positions are however possible under this broad category. Typically, in the US, direct intermodal investments by deep-sea liner operators are confined to cross-country lanes and/or dense corridors (such as from Southern California, or from the Pacific North West to Chicago). Along these routes, operators make heavy investments, through direct ownership or long term lease of assets, in order to provide a tight-knit door-to-door service. On the less dense

lanes, the tendency is to make more use of common carrier services and thus limit the risks associated with ownership (Kumar, 2002).

From an organisational standpoint, while the big shippers can possibly put together cost-effective (transportation and) logistics packages, it is beyond the reach of most small shippers. The possibility of receiving such services from a transportation company, custom-made to suit the needs and desires of individual shippers, big or small, certainly has attractions ranging from simple economics to pure convenience. Though in the extreme case this has resulted in the complete elimination of in-house transportation and logistics departments, in most cases this has resulted in fine-tuning the subsystem towards better productivity and efficiency. Traffic managers, in today's deregulated marketplace, concentrate on the overview rather than the tunnel. Having been relieved of their traditional, mundane responsibilities, these executives now have more time to do what they really should be doing, and thus contribute towards the overall profitability and return on investment of the entire organisation.

## **GLOBALISATION OF PORT DEVELOPMENT AND LABOUR**

This section of the review seeks to 'rethink' the role of Marxist theory in providing a useful reference point from which to contemplate a number of issues pertaining to port development and the role of labour within it. It does so through briefly looking at the concept of globalisation and the role of transport within this process.

## Globalisation and transport

Globalisation refers to the evolution of large firms becoming world-wide in the scope of their operations (Stratton, 2000). According to Ohmae (1990), the concept of global enterprise appears to have been introduced by Cleo who wrote on homogeneous world markets in which companies could purchase low cost materials from anywhere in the world and produce in low labour cost countries based on the concept of global optimisation. About one-quarter of all world trade now occurs within global companies (Davies 1994:16). The forces driving this globalisation process are basically firms' ambitions for growth and increased profitability in wider markets. An attempt to clarify the term globalisation has led to distinctions being made between a global firm and an international or multinational firm, and between a global firm and a multi-domestic firm. An international or multinational firm is one which, while it may operate in many countries or indeed operate worldwide, has a corporate structure centred on its country of origin (Bureau of Transport and Regional Economics, 1994). The operations of a multi-domestic firm, on the other hand, are sufficiently independent of head office. In contrast, Porter (1986:18) defines a global industry as one in which "a firm's competitive position in one country is significantly affected by its position in other countries...". Dicken (1992) also defines globalisation as "a more advanced and complex form of internationalization which implies a degree of functional integration between internationally dispersed economic activities" (Dicken 1992:1).

Such global firms exhibit certain characteristics that have implications for the way in which the world economy operates and, in particular, for small

and medium sized national economies. Globalisation is therefore facilitated by the generally increasing, though not uniform, degree of integration of the world economy towards a single global market for each product (Stratton, 2000).

Beuthe and Janelle (1997) argue that transportation is possibly the least researched element in the complex of factors that make up the process of modern globalisation. They cite Harvey's (1990) work as the only exception to this rule. Harvey uses the notion of space-time compression processes to theoretically define globalisation. He makes reference to transportation as a space-adjusting technology and agent of globalisation. Beuthe and Janelle further argue that the transport industry is a major beneficiary of recent technological developments and a central contributor to this new economy. According to them, globalisation

Acts as catalyst for reduced restrictions on international trade, promotes new technologies and markets them on a global basis, seeks both national and international policy measures to support expanded transport investments, and often discourages regulatory measures to internalise the negative social and environmental costs associated with transport practices (p.200).

The importance of the space-adjusting technologies encompassed within transportation is that it is fundamentally different from other forms of production as that it produces flows linking places. This of course is necessary

to all forms of economic activity, especially in the import/export chain and between the production and consumption of goods and services.

Harvey's (1990) conception of transportation and its linkages within the globalisation process follows from the more recent characterisation of global capitalism: what he refers to as 'flexible accumulation'. Harvey's theory of time-space compression can be understood through capitalist flexible accumulation introducing new forms of labour control through the coordination of more efficient forms of turn over time, coupled with the ability to invest/divest or relocate production across spatial (that is, locational or regional) barriers easily. The focus is therefore on labour control as exercised under the theory of capitalist flexible accumulation, but in particular, how this is utilised in the transportation sector. A key to the dynamic of flexible accumulation's utilisation in the transport sector is how this increasingly globalised service industry interacts within the national, regional and local setting. However, to account for this process in the manifestations of port development in recent capitalism, a brief elaboration of Harvey's adaptation of Marx's reflection on the role of labour is appropriate.

### **Globalisation, labour and port development**

Harvey (1990) sees that the current trend in labour markets is designed to "reduce the number of 'core' workers and to rely increasingly upon a work force that can quickly be taken on board and equally quickly and costlessly be laid off when times get bad". This development is paralleled with another transformation in labour market structure which increasingly relies on "sub-contracting and older labour systems as domestic, artisanal, familial, and

paternalistic". The evidence is such with the proliferation of this form of labour market structure that Harvey believes there is a "growing convergence between 'third world' and advanced capitalist labour systems"(p.152). This suggests that flexibility can also encompass a downward convergence of labour markets.

International solidarity is an important strategy for unions to go beyond national industrial relations legislation. As a result of this, international boycotts (specifically by dock workers) are increasingly targeted by states' legislation which looks to undermine this powerful strategy for unions. In the case of Australia, the Coalition government's anti secondary-boycott legislation in the Trade Practices and Workplace Relations Acts have targeted the actions of the Maritime Union of Australia (MUA). Consequently, legislation is now in place that is circumscribing the ability for unions in Australia to co-ordinate campaigns not only nationally, but internationally, as well (Marges, 1999). However, the 1998 campaign of the MUA against Patrick Stevedores, through the coordination of the International Transport Federation (ITF) affiliates around the globe, aimed to inhibit the unloading of non-union stevedored cargo from Australia. The ITF demonstrated its ability to muster international solidarity to assist the MUA when the union was restricted by domestic legislation to campaign nationally. As such, the MUA is now largely dependent upon the ITF affiliates' ability to engage in international solidarity campaigns on their behalf. Modern communication technologies (as the Internet) have facilitated this process of informing and igniting, almost instantaneously, international solidarity campaigns when necessary (Marges, 1999).



Indeed, the community support during the dispute on the picket-lines blocking the flow of goods through Patrick terminals around Australia demonstrated the high profile and accessibility of the dispute. The dispute revealed a high level of class consciousness within the general public, and may have symbolised for many people a 'microcosm' of wider class conflict within Australia. The dispute was perceived to be relevant not only in highly urbanised locations where it impacted on large numbers of people, but its influence was also felt more widely across other sectors of the economy and society (Marges, 1999).

It is in this way that the role of port labour has historically been seen as strategic, not only in the sense of the state and capital exercising forms of labour control, but in the sense that labour organisations within docks is somehow 'incommensurate' with other locations and trades. Indeed, this appears to be an ongoing challenge to working class formation: the battle for control of the waterfront. The examples above illustrate this point, signalling an ongoing role for the organised labour within the era of capital flexible accumulation.

The theories discussed above, which are based on Marx's earlier theories of the 'annihilation of space by time', point to the nature of this ongoing struggle for strategic position on the waterfront. Despite the onset of 'flexible accumulation', embodied above of recent and fundamental change to the built environment which facilitates maritime trades, it is the same built environment that Harvey reminds us is "long-lived, difficult to alter and spatially immobile" (Harvey 1989: 74). It may be that 'flexible accumulation', at least in the maritime and dock sectors, is now again being met by organised

labour embodied within the ITF. As the recent MUA-Patrick's dispute illustrated, it is no longer adequate to merely rely on an incommensurate position in the economy to organise 'place', traditionally encompassed in a closed-shop across national port operations. Rather, if dock workers' organisations are to remain incommensurate to other forms of labour organisations, they must now seek to organise across space, utilising new forms of solidarity networks globally to regain a strategic position vis-à-vis capital. However, as the Marxist theories discussed here suggest, this struggle for strategic position will be fought out on the built environment spurred by capitalist crises.

#### **Globalisation of port terminal operators**

The crisis within container liner shipping has been prevalent internationally for over a decade. This has occurred through the expansion of container shipping new builds which has led to an over-capacity in the world fleet and reduction in freight rates. Consequently the early 1990s witnessed a series of global amalgamations towards the creation of global mega-carriers consisting of a number of liner conferences (Rimmer, 1998). One objective of the mega-carriers was to gain greater efficiencies in turnover by increasing vessel size and limiting the number of port calls.

Owing to the increasing fixed costs that arise from the deployment of larger vessels, as well as the development of hub and feeder systems, global shipping alliances are increasingly participating in container terminal operations. This is to guarantee quick turnaround of their expensive larger vessels as well as instant berth availability so that smooth mainline-feeder

connections can be maintained. The trend is also towards their involvement in land based activities with the aim of controlling inter-modal interfaces to vertically integrate transport logistics so as to offer a door-to-door service to customers (Lawrance 1998:10). Global shipping alliances are also developing commercial relationships which save costs by sharing equipment, terminal space, and even labour through using workers from neighbouring terminals (Marges, 1996).

### PRIVATISATION OF TRANSPORT FACILITIES

Following trends in other fields, privatisation has also become popular in the transport sector. Public transport facilities are being privatised and deregulated, and highways, light rail systems and port terminals are increasingly being built through 'build-operate-transfer' concession agreements.

In the transport sector, unlike say the steel industry, privatisation rarely in practice means full privatisation and deregulation. Most transport sector privatisations are not full privatisations, and operate within a tightly regulated environment. In fact, the motive for privatisation is generally not just to improve the efficiency of transport service delivery. This is because this can be problematic whether in public or private hands. Moreover, the main parameters effecting system efficiency are population density in the corridor served, traffic congestion, and other factors not influenced by the ownership structure. Rather, privatisation is generally promoted as a means of raising private sector capital for a public purpose. In this sense, it should be looked at

as one financing option among many, and its relative attractiveness to the public interest should be addressed primarily in these terms.

### **Privatisation, liner mergers and effects on labour**

The major terminals operating shipping lines are Sea-Land, Maersk line, Evergreen, Cosco, OOCL and NOL/APL. The trend in alliances between shipping lines is also now extending into alliances and mergers between terminal operators (United Nations Conference on Trade And Development-UNCTAD, 1998). Multi-national port operators have themselves been in a bidding war over the last decade or so to control strategic locations within regions and the world maritime trade. P&O Ports Australia, Port of Singapore Authority, Hutchison Port Holdings, Europe Combined Terminals and Stevedoring Services of America, are but a few examples of these multi-nationals. Each is constantly exploring new avenues from which to invest and gain a foothold in ports globally. One key mechanism that facilitates this process is through governments' adoption of privatisation policy (Woodbridge, 1999). These ventures are made easier with the rapidly growing competition between ports leading governments to seek foreign investment to fund port development (UNCTAD 1998: 75)

Competition, spurred through an initial round of privatisation, is ironically feeding into another intensification of competition and compelling many public ports into a need to invest in extra-capacity to maintain competitiveness. This drive is of course leading cash-strapped governments into depending on the private sector to invest. Consequently, governments' are compelled to create conditions attractive for private capital (Marges, 1996).

The consequence for employees in the port environments is that they are now subject to private shareholders demands. Dock labour has been a casualty of the growing competition between ports seeking to capture greater market shares (Marges, 1996).

Whatever the merits of the degree of privatisation and competition on the efficiency of ports, one direct consequence of privatisation can be seen in its impact on labour standards and organisation (Marges, 1996). At the same time investments in new port infra- and super-structures coincide with downward pressure on working conditions and employment in order to cut labour costs. Deregulation, privatisation and growing competition are leading to this downward pressure and subsequently to the increasing use of non-union labour, casualisation of labour and flexibilisation of labour relations and working conditions (Marges, 1997).

Further consequences for labour have included the repeal of legislation protecting workers' rights as the ability to strike, the abolition of life-long employment guarantees, amendments to legislation enabling employers to dismiss workers more easily, the abolition of the legal basis for collective bargaining, the termination of collective agreements for working conditions and forced acceptance of fixed term contract or replacement by casual workers (Marges, 1997) In many cases, public money is used to allow employers to dismiss dock labour and debilitate union organisation. For example, in Australia the Waterfront Industry Reform Authority redundancy programme was estimated to cost \$419 million between 1989 and 1992, whilst the 1998-99 Maritime Industry Finance Company redundancies and associated reforms were estimated to cost \$300 million (BTCE, 1994:1).

Another challenge to labour as part of the privatisation process is the contracting out or out-sourcing of 'non-core' functions. Successful bidders usually gain the subcontract on the basis of cutting labour costs through employees not being covered by collective agreements. This often involves employing retrenched workers on lower rates (Marges, 1999).

Labour organisations as the International Transport Federation (ITF), however, are not directly opposed to privatisation per se. Rather, the ITF stresses the implications of privatisation as negative if labour is not enabled to participate in restructuring. The ITF also acknowledges that the experience of privatisation varies from country to country (Marges, 1999). It is in sharing common experiences through consolidating labour networks that an ability to influence the nature of privatisation has and should continue to be sought.

## **CONCEPTUAL AND THEORETICAL ISSUES**

Transport is an epitome of complex relationship existing between the physical environment, patterns of social and political activities and levels of economic development (Hoyle and Knowles 1992:11). Transport alone does not generate economic and social growth or development and should therefore be viewed as a permissive factor for development and not a deterministic one as has been established in the early literature on it.

### **The Transport-Development Nexus**

The relationship between transport and development is a subject of considerable theoretical and practical interest which has occupied a great deal of attention over many years in both advanced and less developed countries.

Especially in the less developed countries, there is widespread concern for transport in the context of the desire to promote rapid economic development.

Lord Luggard (1922) said that the material development of Africa could be summed up in the one word- transport. A United Nations study also claimed that transport is the formative power of economic growth and differentiating process (Voight, 1967). Hoyle (1973) writes that transport is a result, rather than a cause of economic development. The transport-development relationship is essentially a two way interaction process and the result of the interaction depends on the type of economy involved and upon the level of development at which transport improvements are effected.

More recently, geographers have moved away from the unquestioning assumption that transport automatically promotes development and have shown that transport constitutes one element in a varied infrastructure necessary for economic growth, no more and no less important than other elements and that does not provide necessarily the positive stimulus which many had previously assumed. Emphasis on the permissive element in transport provision has led to a further view point which maintains that transport investment can also have a negative impact on the economy.

### **Concept of Returns to Transport Investment**

To a large extent, transport is to be derived demand that is, it is a means to an end but not an end in itself and therefore, transport itself cannot give development but allows for resources to be exploited.

Wilson (1966) in pursuing this point came up with three resultant possibilities of transport investment. Firstly, he indicated that under the most

favourable circumstances, there will be a measurable increase in development in terms of agricultural or industrial output, which can be positively attributed to the benefit triggered off by a port, road or a rail network. Alternatively, negative effect may be encountered when the introduction of new transport facility ends up becoming detrimental to the growth of an economy. This portrays a situation where investment in, for instance a national airline, port extension, roads or railway network may prove uneconomic but could have produced more beneficial results if the resources had been channelled to a different sector such as agriculture.

On a different note, transport investment may yield neutral returns or benefits. This neutral effect may be identified when the investment in transport does not bring about any discernable change in the local economy. The building of a new road, rail or the extension of a seaport may occasionally fail to meet the objectives set by its financiers. In some cases, the regions which are experiencing the transport improvements may prove incapable of further economic growth because of adverse climate, soils or geological factors and therefore the old concept of transport as a 'magic wand' capable of waiving off adverse factors can no longer be accepted. Transport improvement alone can not produce economic growth though in a suitable environment it can be the missing agent. Furthermore, over-commitment of scarce resources to transportation can strangle development hopes as quickly as will insufficient facilities. So there is a balancing act of discovering how much and what sort of investment is required.



## Conditions for Economic Development Model

Banister and Berechman (2000) introduced this model (Figure 2) in which they highlighted what they called the three conditions necessary for a new transport investment to have economic development impact.

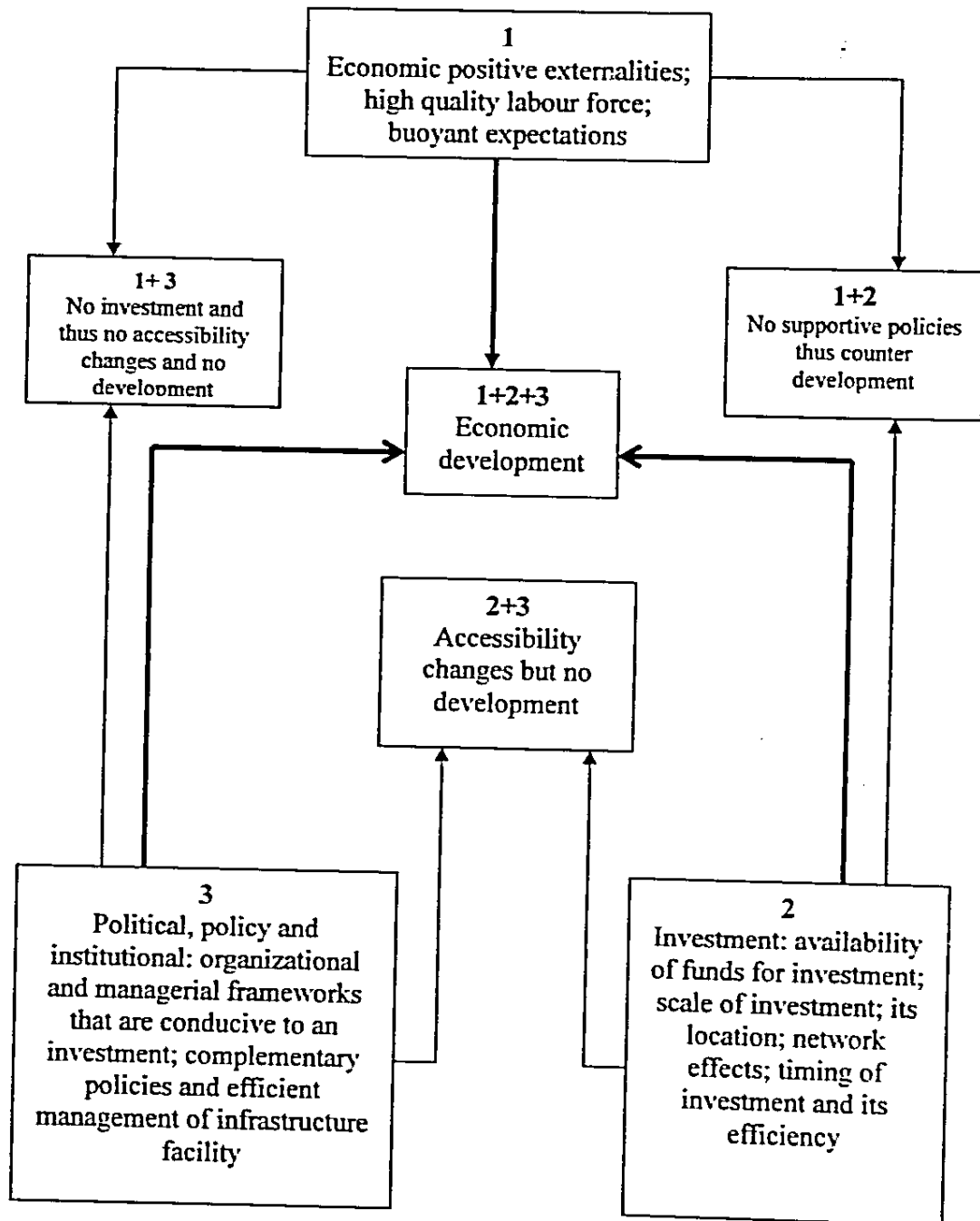


Figure 2: Conditions for Economic Development Model

Source: Banister and Berechman (2000)

These factors are economic, investment and political which must be favourable to ensure economic growth. They suggested that until all three factors come to play, a new transport investment may result in no development or might even have counter development effects.

### **Economic Factors**

The first and most important condition is the presence of underlying positive economic externalities, such as agglomeration and labour market economies, the availability of a good quality (well trained and highly skilled) labour force, and underlying dynamics in the local economy. This is a fundamental condition, as it is only when these factors are all positive and the local economy is buoyant that new transport investment will, in conjunction with other necessary conditions, have an economic development impact.

### **Investment Factors**

Secondly, there are investment factors, which relate to the availability of funds for the investment, the scale of the investment and its location, the network effects (e.g. are there missing links in the network), and the actual timing of the investment. Transport infrastructure investment decisions are not made in isolation, so the nature of the investment, including its "place" in the network, is also one of the necessary conditions that need to be considered.

Many Japanese critics point out that one of the major sources of rail system inefficiency was the construction of rail lines to areas without sufficient demand to justify the investment but where investment went ahead in any case due to political pressure. The Joetsu Shinkansen (bullet train) was

built between Tokyo and Niigata, a lightly populated town on the Sea of Japan, where political supporters of ex-Prime Minister Tanaka were major land owners. This line was inherently unprofitable, as were many other little used mostly rural lines, and debts incurred as a result of their construction were a significant cause of Japan National Railroads' (JNR) burgeoning debt problems. Corruption in the awarding of contracts at JNR was also a notorious problem, driving up the cost of construction. The privatization did seem to put a stop to some of the worst political interference into investment and contracting decisions by JNR (Hook, 1996).

### **Political Factors**

The third set constitutes political factors that are related to the broader policy environment within which transport decisions must be taken. To achieve economic development, complementary decisions and a facilitating environment must be in place; otherwise the impacts may be counterproductive. Leung (1980), writing on the railway patterns and national goals in China, concluded that different goals can be attained with identical strategies, but that development strategies or even political decisions themselves are ineffective if not framed in an accepted *raison d'être* or can even be counter productive in the absence of an appropriate political ideology (1980: 170).

Banister and Berechman (2000), included in this group of factors the sources of finance, the level of investment (local, regional or national), the supporting legal, organisational and institutional policies and processes, and any necessary complementary policy actions (e.g. grants, tax breaks and

training programs). Again, on its own, even a favourable political environment will not result in economic growth unless other necessary conditions are present.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **INTRODUCTION**

This chapter deals with methodological issues and includes the study design, sampling procedure, methods of data collection and analyses as well as the quality of the data collected. Also covered in this chapter are an assessment of the preliminary survey and problems encountered in the field.

#### **STUDY DESIGN**

This study is an exploratory one which looked at private participation in the Tema port container terminal and implications for stevedoring companies in Ghana. The research employed both qualitative and quantitative approaches in the data collection and analyses of responses.

#### **SAMPLING PROCEDURE**

##### **Sampling frame and size**

The target population for the study was officials of GPHA, directors and operations managers of the stevedoring companies, winch men, forklift operators, top lift operators and quay supervisors. Directors and other workers of the shipping agencies who are not members of the consortium were also targeted for interviews. However, several trips to their offices proved fruitless and therefore they were finally excluded in the analysis. Key member

companies of the Ghana association of Stevedoring Companies (GASCO) were also contacted and interviewed. The sampling procedure adapted for the stevedoring workers was to select 10 per cent of each company's labour force for the interviews. This resulted in a target of 90 respondents from the workers of the private stevedore companies. On the other hand, Ghana Dock Labour Company was considered as a unique entity and considering its size, a sample size of 60 workers was targeted to give a total targeted sample size of 150 for all stevedoring workers, both casual and permanent. A total of 125 respondents were interviewed. Out of which 100 were Stevedore workers. This summarised in table 2.

**Table 2: Sample Size and Response Rate**

| Respondent                          | Target | Actual<br>interviews | Response<br>rate |
|-------------------------------------|--------|----------------------|------------------|
| Permanent workers                   | 90     | 60                   | 66.7             |
| Casual workers                      | 60     | 40                   | 66.7             |
| Directors/operation managers        | 18     | 10                   | 55.6             |
| Local labour union                  | 3      | 1                    | 33.3             |
| Participating shipping company      | 2      | 1                    | 50.0             |
| GPHA officials                      | 4      | 3                    | 75.0             |
| Focus group discussion<br>(workers) | 10     | 10                   | 100.0            |
| All respondents                     | 187    | 125                  | 66.8             |

Source: Fieldwork 2006

Among them, 28 per cent were from companies with a labour force of 51 to 100 workers while 32 per cent were drawn from companies with a total labour force of 101 to 150. The remaining 40 per cent of the respondents were drawn from the Ghana Dock Workers Union which at the time had a workforce of over 4000 workers.

There was a response rate of 66.8 per cent. The questionnaire was 90 per cent open ended. This gave the researcher the opportunity for probing but respondents saw it as a grievous time waster.

### **Sampling techniques**

Both probability and non-probability sampling techniques was employed in choosing respondents for the various research instruments. Though the study set out to interview a section of all stevedoring workers operating at the Tema port, due to the nature of their job, convenience sampling became the handiest method for selecting respondents for the study. However, a quota of ten respondents was allotted to all stevedoring companies and the respondents were randomly selected from workers available at the time of the survey. The initial quota system adapted was to ensure that the sample selected was as similar as possible to the sampling population (all stevedoring companies). Though the convenience sampling method allowed the researcher to interview respondents who were readily available and therefore save cost and time, it was equally difficult for the researcher to estimate the representativeness of the sample (Kuzel, 1992). A measure adapted by the researcher to ensure that there was fair representation among the workers was to ensure that various categories of workers such as secretaries, winch men,

quay supervisors, forklift operators and others were selected. The directors and operation managers of the various companies were purposively sampled and were therefore automatic participants. In cases where they could not be reached their deputies were asked to replace them.

Only one focus group discussion was conducted among the stevedoring workers. This was because of the difficulty encountered in assembling them for such activities. Participants were therefore chosen using the convenience sampling method. Ten workers were assembled for the discussion, three of whom were executives of their local labour union and seven others who were voted by their colleague workers to represent their interest. The focus group discussion was used to back up individual responses solicited (Miles and Huberman, 1994).

### **PILOT STUDY**

Pilot study was conducted in one of the stevedoring companies in the Tema port to pre-test the data collection methods and instruments. It was also used to test data processing and analyses procedures. In all ten respondents were interviewed and this comprised eight workers, one director and an operations manager. The responses were analysed manually.

It became apparent from the pre testing that the interviews with the top officials of the stevedoring companies would take up to forty-five minutes each. It was also realised that some of the terms used should be changed to reflect port standards and to enable respondents understand the questionnaires better. The pilot study apparently brought to light some of the problems likely to be encountered during the actual field work. Adjustments were therefore



made to overcome them before the field survey itself. For instance, it became necessary to reduce the number of questions because many respondents complained of time spent in completing the questionnaire.

## DATA COLLECTION TECHNIQUES AND INSTRUMENTS

Both primary and secondary data was sourced for the study. The secondary data mainly consisted of official statistics and other information from GPHA and several published and unpublished articles of seasoned authorities in the field of port development and transport and logistics experts.

Structured questionnaires and interview guides were the main tools employed for primary data collection. In all five sets of questionnaires were designed (Appendix 1-5) with each exclusively designed for the following categories of respondents:

- i. Directors and operations managers of stevedoring companies;
- ii. Workers of stevedoring companies and Ghana Dock Labour Company;
- iii. Participating companies of the consortium;
- iv. Non-participating shipping companies; and
- v. Local labour unions and stevedoring associations.

Two interview guides (Appendices 6 and 7) were designed for officials of the Ghana Ports and Harbours Authority (GPHA) and a focus group discussion conducted with some workers of the stevedoring companies. The questionnaire for directors and operations managers of the local stevedoring companies was made up of six modules. Module A sought information on the background of the respondent such as their ages, marital status, level of

education and position held in company. Module B focussed on structural changes experienced at the port particularly within the last decade and the effects of containerisation on port infrastructure, equipment, labour and competition among stevedoring companies. Module C basically looked at challenges facing the stevedoring companies while Module D specifically looked at job loses and the issue of casual labour in the port sector. Module E concentrated on the ability of stevedoring companies to continue operating in the face of growing technologies in the industry. They were also required to list some of the equipment used for container handling in order to aid the researcher make relevant comparisons with modern equipment used in other foreign ports for the same purpose. Finally Module F solicited the views of respondents on the Consortium and the effects of its operations on stevedoring activities.

The questionnaire designed for the workers of the stevedoring companies was similar to the aforementioned one. However, it fell short of some vital information such as the company's total investment which was included in the directors' questionnaire. The questionnaire had four basic modules of which A comprised of questions aimed at identifying the background of the respondents while module B focused on the structural changes observed in the stevedoring industry and the port as a whole especially with the invention of the container technology. Module C sought to solicit information on the challenges facing the stevedoring industry especially with the entrance of the Consortium into cargo handling operations. While D focused on the future of the stevedoring industry in Ghana.

All questionnaires employed in this study were 90 per cent open-ended and therefore most questions were not followed by any kind of specified choice which enabled responses to be recorded in full. This allowed respondents to express their thoughts freely and avoid being forced to adapt preconceived answers (Frankfort-Nachmias and Nachmias, 1996). Some of the questions were however closed ended where respondents were offered a set of answers from which to choose from. This was more convenient to most respondents although the major drawback here was that it introduced bias by forcing respondents to choose from given alternatives which might not have otherwise come to mind (Chardwick et al, 1984).

A focus group discussion was also conducted among the stevedore workers. The discussion which was aimed at soliciting information on the study topic within a group environment proved to be very successful. There were 10 participants in all with two facilitators one as the moderator and the other, the recorder of responses from participants. The FGD was conducted to complement the responses of the main respondents in the survey and it also allowed great flexibility in the questioning process. It also allowed the interviewer to clarify terms that were unclear, control the order in which questions were asked and to probe for additional information. Some of the issues covered were effects of containerisation on stevedoring activities, challenges in the stevedoring industry and views of respondents on the Consortium.

The group environment encouraged discussions related to the issues. Sarantakos (1998) suggest that FGDs allow significant points of view to be presented in a real, emotional and summary form as spontaneous expression.

The focus group discussion also provided significant information about the study object and explained trend variances, reasons and causes through the views of respondents.

## **DATA PROCESSING AND ANALYSIS**

Data collected from the study were edited, coded and analysed using the Statistical Product for Service Solutions (SPSS) version 12.0 which has facilities for descriptive and inferential statistics, cross tabulations and frequency distributions.

Analysis of field data involved describing, summarising and interpreting data obtained from each study unit. Cross tabulations and frequency distributions were obtained for this purpose. The chi square test was carried out on the data to determine whether differences between educational background, sex, age on the part of individual workers and levels of investment by individual stevedoring companies were statistically significant to influence responses of respondents and hence the conclusions of this study.

Answers to open-ended questions in the interview schedule were listed and later categorised. This was done based on the research objectives which included identifying the structural changes in the Tema Port as a result of containerisation and challenges in the stevedoring industries. Similar answers were summarised into three or five categories. They were then coded and entered into the computer to generate frequencies and cross tabulations. The results of the computer analysis were presented in tables to make it possible to visualise the relationship between some of the variables.

Ranking was used in analysing part of the collected data especially for some responses in Module C of appendix 1, Module B of appendices 2, Modules A and B of appendices 3 and 4; and Module D of appendix 5. A first position placing represented an activity that was most important and earned four points; a second position placement represented an activity that is important and earned three points; a third position placement represented an activity that is less important and earned two points while a fourth position placing represented an activity that is not important and earned one point.

### **PROBLEMS ENCOUNTERED IN THE FIELD**

Most of the problems encountered in the field have been partially discussed already in this chapter. As much as possible, some measures were put in place by the researcher to prevent these problems encountered from undermining the quality of the study. Apart from the Directors and GPHA officials who requested that an appointment was booked with them for the interviews, the others suggested that the questionnaires be left with them to respond at their own convenience due to the nature of their jobs. Some of those questionnaires could not be retrieved after several visits to the port. It took proper timing to get some of the workers to respond since it was only possible to get them during brief periods they spent at the port offices since the berths and quays were restricted areas.

Another problem encountered was the refusal to respond to questions on investments. Virtually all the directors avoided the question. Others only answered the first page which was mainly made up of questions on their socio

demographic data and did not go further to answer the other modules, therefore rendering such forms un-usable.

In spite of the problems encountered in the field, the findings of this research provide invaluable insights into private participation in the Tema Port container terminal and its implications for stevedoring in Ghana.

## CHAPTER FOUR

### BACKGROUND OF RESPONDENTS

#### INTRODUCTION

The advent of containerization has had great impacts on the shipping industry. Ever since Ghana opened its doors to this technology in the 1970s, it has changed both the transport and logistics industry. This chapter focuses on the socio-demographic background of the respondents.

#### DEMOGRAPHIC AND SOCIOECONOMIC BACKGROUND OF RESPONDENTS

##### Age

Out of the 100 stevedore workers interviewed, 5 per cent were aged of 21-30 years, 46 per cent 31-40 years, 28 per cent 41-50 while 21 per cent were 51-60 years old (Table 3).

**Table 3: Age Distribution of Respondents (%)**

| Age   | Managers and directors | Other workers |
|-------|------------------------|---------------|
| 21-30 | 0.0                    | 5.0           |
| 31-40 | 20.0                   | 46.0          |
| 41-50 | 20.0                   | 28.0          |
| 51-60 | 60.0                   | 21.0          |
| Total | 100                    | 100           |

Source: Fieldwork, 2006

It can be inferred from the Table that most of the workers are youthful. However, data from the 10 top officials interviewed in the stevedoring companies showed that only 20 per cent were below the age of 41, as against 60 per cent who were above 50 years. This showed an ageing population among the top officials as 60 per cent were on the fringe of retirement according to the Ghana pension law.

#### Sex distribution of respondents

The data collected showed a greater male dominance in the stevedoring industry in relation to their female counterparts. Among the 100 workers interviewed for the study, only 3 per cent were females and these were mainly serving as secretaries in some companies (Table 4). There was no female respondent among the operations managers and directors of companies sampled for the study again denoting the dominance of males in the port environment especially in the stevedoring industry in Ghana.

**Table 4: Sex distribution of Respondents (%)**

| Sex    | Managers and directors | Other workers |
|--------|------------------------|---------------|
| Male   | 10                     | 97            |
| Female | 0                      | 3             |
| Total  | 10                     | 100           |

Source: Fieldwork, 2006

A cross tabulation of sex and age as depicted in Table 5 showed that there was one female each in the age category of 21-30, 31-40 and 41-50



respectively while the male composition was 4, 45, 27, 21 males of ages 21-30, 31-40, 41-50 and 51-60 respectively. There is no female above the age of 50 years among the sampled respondents working in the stevedoring environment.

**Table 5: Sex and Ages of Respondents**

| Age   | Sex  |        | Total |
|-------|------|--------|-------|
|       | Male | female |       |
| 21-30 | 4    | 1      | 5     |
| 31-40 | 45   | 1      | 46    |
| 41-50 | 27   | 1      | 28    |
| 51-60 | 21   | 0      | 21    |
| Total | 97   | 3      | 100   |

Source: Fieldwork, 2006

### **Family Life of Respondents**

Among the 100 workers of the stevedoring companies interviewed, nine (9 per cent) had never married while 89 per cent were married and the remaining 2 per cent have been widowed (Table 6). Among the unmarried respondents, only one had a child while 8 had no issue. Among the married respondents however, 3 had no children, 49 had 1-3 children and 34 had 4-6 children. Going by the above statistics it can be assumed though not conclusively that at least 89 per cent of workers had dependents composed of spouses and children. All the top officials interviewed were also married but did not provide information on the number of children they had.

**Table 6: Marital Status and Number of Children of Respondents**

| Marital status | Number of children |           |           |             | Total      |
|----------------|--------------------|-----------|-----------|-------------|------------|
|                | None               | 1-3       | 4-6       | More than 7 |            |
| Never married  | 8                  | 1         | 0         | 0           | 9          |
| Married        | 3                  | 49        | 34        | 3           | 89         |
| Widowed        | 0                  | 1         | 0         | 1           | 2          |
| <b>Total</b>   | <b>1</b>           | <b>51</b> | <b>34</b> | <b>4</b>    | <b>100</b> |

Source: Fieldwork, 2006

### Education among Stevedoring Workers

All the respondents interviewed had at least some level of formal education of which the least was at the basic level [primary or junior secondary school (JSS)].

**Table 7: Educational Levels of Respondents (%)**

| Level of education    | Stevedore workers | Managers and Directors |
|-----------------------|-------------------|------------------------|
| JSS/ Elementary       | 20                | 0                      |
| SSS/ Secondary        | 34                | 20                     |
| Vocational/ Technical | 27                | 0                      |
| Tertiary              | 19.0              | 80                     |
| <b>Total</b>          | <b>100</b>        | <b>100</b>             |

Source: Fieldwork, 2006

As shown in Table 7, 20 per cent had either Elementary or JSS education, 34 per cent had secondary school education while 27 per cent had vocational or technical education.

These people had spent varied number of years for their formal education and this is shown in Table 8. Eighteen per cent had spent between 6 and 10, 46 per cent between 11 and 15 years while only 2 per cent spent between 21 and 25 years in school.

**Table 8: Number of Years Spent in Formal Education**

| Number of years spent in formal education | Stevedore workers | Managers and Directors |
|---|-------------------|------------------------|
| 6-10                                      | 18                | 0                      |
| 11-15                                     | 46                | 2                      |
| 16-20                                     | 34                | 5                      |
| 21-25                                     | 2                 | 2                      |
| More than 26                              | 0                 | 1                      |
| Total                                     | 100               | 10                     |

Source: Fieldwork, 2006

Among the ten officials interviewed from the stevedoring companies, 20 per cent had spent between 11 and 15 years to acquire formal education up to the secondary school level while 50 per cent spent between 16 to 20 years, to acquire various degrees and diplomas in tertiary institutions including universities, polytechnics and the Ghana Maritime Academy,

### Years in current employment

Out of the nine stevedoring companies sampled for this study, only two had been in existence since the 1970s. Most of the stevedoring companies were given licenses to operate over the last 5 years and this explains the reason for 69 per cent of the respondents having spent less or up to 5 years in their current employment (Table 9).

**Table 9: Number of Years in Current Employment**

| Years in current employment | Stevedore workers | Managers and directors |
|-----------------------------|-------------------|------------------------|
| 1-5                         | 69                | 7                      |
| 6-10                        | 15                | 2                      |
| 11-15                       | 4                 | 0                      |
| 16-20                       | 8                 | 0                      |
| 21-25                       | 0                 | 1                      |
| 26-30                       | 4                 | 0                      |
| Total                       | 100               | 10                     |

Source: Fieldwork, 2006

Among the sampled top officials, 70 per cent had spent 1-5 years in their current employment while 20 per cent had spent periods ranging from 11-15 years. Only 10 per cent had a long service record of between 21-25 years with their current employers. The data above suggest that a greater number of respondents might have been with their companies since its inception and therefore had up-to-date knowledge of their activities, performance and

challenges over the years and were therefore the right respondents for the study.

Table 10 also shows the number of years the stevedoring companies have been operating. Respondents from the sampled stevedoring companies confirmed the literature that most of the companies were given licenses to operate within the last five years.

**Table 10: Number of Years Of Company's Operations at the Port**

| Years in operation at the port | Frequency | Per cent |
|--------------------------------|-----------|----------|
| 1-5                            | 7         | 70       |
| 26-30                          | 2         | 20       |
| 30-35                          | 1         | 10       |
| Total                          | 10        | 100      |

Source: Fieldwork, 2006

Seventy per cent of the respondents acceded to the fact that their companies started operations within the last five years while 20 per cent said they had been operating between the past 26-30 years with 10 per cent having been operating between the last 30-35 years.

#### **Employment status of respondents**

Historically, casual labour has been the principal source of port labour irrespective of where in the world they are located (Dubbeld 2001). Because the volume of work varies daily, it has been profitable for ports to employ most of the labourers by the day, rather than permanently or on fixed contract.

Stevedoring work has also been dangerous, unreliable, and not particularly financially rewarding for workers and they have often chosen to be casual rather than permanent workers. Casual labour has often been a feature of emerging industries that are still struggling to understand the amounts of regular labour needed. The Tema port data showed that 40 per cent of the respondents were casual workers. It must be noted that all casual workers belong to the Ghana Dock Labour Company which was formed by the stevedoring companies in collaboration with the Ghana Ports and Harbours Authority to serve as a labour pool for the stevedoring companies. Currently the GDLC employs about 4000 dock workers. The rest of the respondents (60 per cent) are all permanent workers drawn from the private stevedoring companies currently operating at the Port of Tema. According to a Ghana Association of Stevedoring Companies (GASCO) report (2004), stevedoring companies as of April 2004 collectively employed about 600 permanent workers.

## CHAPTER FIVE

### EFFECTS OF CONTAINERISATION ON THE STEVEDORING INDUSTRY

#### INTRODUCTION

This chapter assesses the changes experienced within the port of Tema and the stevedoring industry in Ghana due to the introduction of the container technology. The chapter begins with an identification of some structural changes that has taken place at the Port of Tema as a result of containerisation and also assesses the impact of containerisation on labour activities.

#### CHANGES IN THE STEVEDORING INDUSTRY

The stevedoring industry in Ghana has experienced a lot of changes in recent years. From a redefinition of stevedoring to include some shore handling activities to the acquisition of gantry cranes and the construction of a dedicated container terminal, these changes can be perceived to be positively geared towards the development of the industry and the port in general. Respondents enumerated a host of these changes as discussed below.

#### **Increased private sector participation**

Asked what changes had been observed in the last decade, a 38 year old Assistant Operations Manager had this to say:

“The past five years have seen the licensing and operation of seven new stevedoring companies which operate

alongside the then existing ones that is, GPHA, APS and Speedline”.

Indeed, 37 per cent of the respondents sampled also alluded to this fact (Table 11).

**Table 11: Changes in Stevedoring Industry in Ghana (%)**

| Observed Changes In Stevedoring Industry            | Per cent   |
|---|------------|
| No change   | 6          |
| Increased private sector participation              | 37         |
| Average improvement                                 | 12         |
| Low productivity/underutilisation of some equipment | 5          |
| Investment in modern technologies                   | 11         |
| High employment rate                                | 1          |
| Created competition                                 | 3          |
| Highly trained and skilled staff                    | 2          |
| Faster and efficient services                       | 4          |
| Formation of GDLC                                   | 4          |
| Formation of the consortium                         | 6          |
| Redefinition of stevedoring in Ghana                | 1          |
| Reduction in employment levels                      | 2          |
| Improved security at the port                       | 4          |
| <b>Total</b>  | <b>100</b> |

Source: Fieldwork, 2006

Increased private sector participation is seen as a major change observed in the stevedoring industry especially within the last decade. This has been attributed to the licensing of seven other private stevedoring companies



in addition to the two existing private companies (Atlantic Ports Services and Speedline Stevedoring Company) within the past five years. These companies are Advanced Stevedore Company (ASC), Gemini Maritime Services (GMS), Carl Tiedemann Services (CTS), Dashwood Stevedores Agency (DSA), Golden Gate Services (GGS), Fountain View Limited (FVS) and Odart Stevedoring Co. Limited (OSC).

One of the respondents, a 46 year old assistant operations manager believes it is a government policy and even indicated that:

“As part of Ghana’s quest to position itself as a gateway to Africa, the government has introduced private participation within the stevedoring industry with the registration of seven more companies....”

His remarks were corroborated by a 37 year old quay supervisor who observed among other issues that:

“The port operations have been decentralised giving way to other private stevedore companies to operate.”

### **Productivity in the Stevedoring Industry**

In the face of increased private sector participation in the stevedoring industry, five per cent of the respondents cited low productivity in the industry. This was explained by a 30-year-old female secretary as resulting from the introduction of additional stevedoring companies, which has limited work on vessels. Another worker added that more stevedores have entered into the business leading to low productivity. On the other hand two per cent of the respondents cited increased productivity in the stevedoring industry,

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attributing it to the training of more skilled labour for use on the new equipment acquired by individual companies.

### **Acquisition and use of advanced technology**

Eleven per cent of the respondents cited the acquisition of state of the art technologies and its usage as a major change that has taken place in the stevedoring industry. Some cited the acquisition of gantry cranes by the GPHA and other heavy duty container handling equipment such as reach stackers, spreaders, and 32 and 28 ton fork lifters. As a 35-year-old stevedore worker remarked:

“In the last decade cargoes were containerised to enhance fast and smooth operations in the stevedoring industry....Formerly, cars were stored in hatches which was very difficult to discharge”

### **Changes in the employment structure**

On the issue of employment one per cent of the respondents saw an increase in the last decade. This was attributed primarily to the increase in the licensed stevedoring companies. However some two per cent saw a reverse of this situation and rather cited loss of jobs in the stevedoring industry. To this category of respondents, the advent of the container technology in the industry has to a large extent reduced the number of dock workers who handle cargo and this has led to the shedding off of labour in most of the companies in the industry. This notwithstanding, four per cent of the respondents cited the formation of the Ghana Dock Labour Company as a significant change that

has taken place in the industry. Especially noted was the GDLC's ability to bring all casual workers under one umbrella to serve as a labour pool for the stevedoring companies.

### **Redefinition of Stevedoring in Ghana**

Stevedoring in Ghana has been redefined from loading and discharging of cargo to and from ships or vessels to include stacking and this was seen by three per cent of the respondents as a significant change in the stevedoring industry over the last decade. The redefinition was effected in 1997 by the GPHA to include some aspects of shore handling. Prior to the redefinition, stevedoring activity ended on the quay after which the GPHA was responsible for warehousing and delivery of cargo to consignees. However, since 1997 stevedoring companies have been made to include the extra responsibility of transferring cargo from the quay and stacking them in sheds or warehouses.

### **Other Changes**

A host of other changes were observed by the respondents. For example, three per cent of the respondents said there had been increased competition among the companies basically due to the increased private sector participation in the industry. One of the respondents remarked as follows:

“Privatisation of stevedoring activities in Ghana has made the industry very competitive and the companies involved work with professionalism to achieve results. Good performance, efficiency and safety matters are taken seriously” (45-year-old Operations Officer).

The formation of the consortium was also regarded by six per cent of the respondents as a major change while 12 per cent of them stated that there had been average improvement or changes in the industry over the last decade without specifying the actual changes.

#### **Changes in individual companies**

Respondents were asked to state significant changes they had observed in their own companies over the last decade. Twenty two per cent said there had been no noticeable change in their companies (Table 12).

Thirteen per cent cited slight to average changes but failed to specify the particular changes noticed in their companies. Four per cent however felt there had been a decline in productivity, citing under-utilisation of some equipment especially those used for handling non-containerised cargo.

On the other hand, four per cent of the respondents said there had been an increase in productivity over the past decade as a result of an increase in the employment of highly skilled and trained workers in their companies. According to 32 per cent of the respondents, the major change that had taken place in their companies was the acquisition and utilisation of state-of-the-art technology which had become very necessary because cargo handling methods are now far more advanced than previously.

**Table 12: Changes in Individual Companies over the Last Decade**

| Observed change                                     | Per cent   |
|---|------------|
| No change   | 22         |
| Increased private sector participation              | 4          |
| Average improvement                                 | 13         |
| Low productivity/underutilisation of some equipment | 4          |
| Investment in modern technologies                   | 32         |
| High employment rate                                | 5          |
| Highly trained and skilled staff                    | 4          |
| Faster and efficient services                       | 4          |
| Redefinition of stevedoring in Ghana                | 1          |
| Reduction in employment levels                      | 7          |
| Proper protective clothing has been provided        | 4          |
| <b>Total</b>  | <b>100</b> |

Source: Fieldwork, 2006

In order to keep abreast with current trends in the industry and to aid efficiency in the loading and discharging of cargo to and from vessels, most companies have made huge investments in modern stevedoring equipment such as reach stackers and spreaders.

Most of the newly acquired equipment are mainly for container handling. Another reason for this increased investment in the container handling equipment is its rapid increase over the conventional cargo over the years as depicted in Table 13.

**Table 13: Cargo throughput at the Port of Tema (traffic in 1000 tonnes)**

| Cargo        | 2000        |             | 2001        |             | 2002        |             | 2003        |             | 2004        |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | Imp.        | Exp.        | Imp.        | Exp.        | Imp.        | Exp.        | Imp.        | Exp.        | Imp.        | Exp.        |
| Liquid       | 2064        | 291         | 2096        | 335         | 2079        | 248         | 1963        | 215         | 2608        | 356         |
| bulk         |             |             |             |             |             |             |             |             |             |             |
| Dry bulk     | 1576        | 37          | 1289        | 34          | 1258        | 38          | 1139        | 52          | 1202        | 64          |
| General      | 257         | 162         | 311         | 157         | 233         | 159         | 323         | 45          | 530         | 59          |
| Bagged       | 493         | 60          | 724         | 53          | 1024        | 28          | 1112        | 42          | 737         | 37          |
| Containe     | 916         | 350         | 958         | 334         | 1425        | 344         | 1997        | 480         | 2185        | 660         |
| rised        |             |             |             |             |             |             |             |             |             |             |
| Forest       | -           | 0.5         | -           | 0.9         | -           | 0.6         | -           | 1.5         | -           | 0.3         |
| products     |             |             |             |             |             |             |             |             |             |             |
| <b>Total</b> | <b>5308</b> | <b>6219</b> | <b>5379</b> | <b>6312</b> | <b>6020</b> | <b>6841</b> | <b>6553</b> | <b>7391</b> | <b>7264</b> | <b>9621</b> |

Source: Ghana Ports Handbook (2005:36)

In the words of a 56-year old Operations Manager,

“As a result of the growth of containerisation world wide-- with Africa accounting for eight per cent--our company has restructured operations on container handling. The company has acquired four Reach stackers at a cost of approximately \$500,000 each in the last four years to meet the growing challenges.”

Employment issues were also cited by some of the respondents from the individual companies as having had a significant impact. One in 20 cited an increase in employment and conditions of services for the employees because of increased private sector participation in stevedoring. One

respondent even remarked that there is now transport for staff as well as housing and good working relationship with management.

On the other hand, one in thirteen of the respondents said there has been a reduction in their company's employment levels. Another respondent stated the experience his company went through two years ago as follows:

"In response to the imminent reduction in traffic volumes, our company embarked upon a redundancy exercise in 2004 which shed off a third of the work force" (38 year old Assistant Operations Manager).

Another notable change in the individual companies was improvement in services rendered by the companies. Four per cent of the respondents observed that their companies now offer more efficient and faster services to the shipping companies and their agents than they did ten years ago.

### **Changes due to Containerisation**

Containerisation according to Hemson (1996) has fundamentally changed the built environment of port infrastructure. Respondents were asked to identify the structural changes in the Tema Port as a result of containerisation and assess the impact of containerisation on labour activities.

### **General Changes**

When asked about the effects of containerisation on ports operations, a GPHA official replied:

"The container technology is an invasive subject. Its impact can be felt in almost all aspects of port operations which

includes port infrastructure, management organisation and even in terms of demand for investment capital. This is because when demand increases, it leads to the situation where the port operator realises he needs to put in place a lot of changes in almost all his operations. This in itself starts off a chain of effects in almost every section of the organisation, not only in terms of physical development but also in management and technical competence to handle the containers making containerisation different from the old system of cargo transportation”.

Containerisation as observed by 87 per cent of the respondents has changed the face of the stevedoring industry in Ghana. Some of the changes enumerated by the respondents are shown in Table 14. As the use of containers for export and import increases in the West African sub-region reflecting global trends, most stevedoring companies have contracted loans to acquire equipment to enable them work faster and more efficiently and this has led to a faster turn around time of vessels at the Tema port.

The evidence provided in Table 14 on the reduction of employment levels confirms Hemson's (1996) assertion that containerisation has adversely affected the stevedoring industry. The focus of the stevedoring labour process has shifted from labour-intensive loading and discharging of cargo on vessels, which employed large numbers, to capital-intensive machinery based on the shore which has led to massive unemployment among dock workers.



**Table 14: General Changes as a Result of Containerisation (%)**

| Observed changes                                    | Per cent |
|---|----------|
| No change   | 13.0     |
| Average improvement                                 | 17.0     |
| Low productivity/underutilisation of some equipment | 3.0      |
| Investment in modern technologies                   | 20.0     |
| Highly trained and skilled staff                    | 6.0      |
| Faster and efficient services                       | 10.0     |
| Formation of the consortium                         | 4.0      |
| Redefinition of stevedoring in Ghana                | 1.0      |
| Reduction in employment levels                      | 18.0     |
| Safety of cargo has been ensured                    | 4.0      |
| Extension of stacking area                          | 4.0      |
| Total   | 100      |

Source: Fieldwork, 2006

Another general change observed in the stevedoring industry as a result of containerisation is the safety of containerised cargo. As indicated by four per cent of the respondents, the introduction of containers was a technological advancement in the quest to ensure the safe movement of cargo right from the point of supply to the final destination. To a large extent as observed by the respondents, this technology has had a major impact on the reduction of cargo pilferage.

The presence of a seal on a container provides evidence that its cargo has remained secure throughout the journey. However, unlawful entry can still

occur with the removal of a section of the container's body, interference with the seal on the outer container door or interference to the container doors of which the weakest links tend to be the pivot rivet connecting the door handle to the handle hub, the rivet to the swivel seal bracket and the rivets on the door hinges. In many cases improved security procedures have reduced the opportunities for loss occurring at the port or terminal.

### **Effects of Containerisation on Labour**

Hemson (1996) wrote that technological changes, most dramatically seen with the introduction of containerisation in the 1970s and 1980s, appear driven through the global imperative aimed at reducing stevedoring labour to a relatively small activity in the overall movement of cargo in the harbour (1996:17). Before proceeding with the arguments on the effects of containerisation on labour, it will be prudent at this stage to examine the nature of the labour force in the stevedoring industry in Ghana. In 2004, all the stevedoring companies in operation at the time at the port collaborated with the GPHA to form the Ghana Dock Labour Company (GDLC) which is a pool of casual workers. The mainstream stevedoring companies were made up of only permanent workers while casual labour was regularly drawn from the pool by all the stevedoring companies whenever there was a vessel with cargo to be loaded or discharged.

There are over 4000 casual workers with the GDLC whose services are employed as and when needed while there are relatively lower labour figures for the mainstream stevedoring companies. Out of the 100 respondents drawn for this study, 28 per cent said their companies had a labour force of between

51-100 workers, while 32 per cent had a labour size of between 101 and 150 with 40 percent having more than 151 workers in their companies.

Containerisation like any other technology though good has its own shortcomings. It was not surprising therefore, when 68 per cent of the respondents reiterated the fact that there has been massive unemployment of dock labour as a result of the introduction of this technology (Table 15).

Many believe that this is because less labour is required for the handling of containers unlike the conventional or non containerised cargo.

**Table 15: Effect of Containerisation on Labour by Size of the Labour Force**

| Effect of containerisation on labour | Company's labour size |           |               | Total      |
|--------------------------------------|-----------------------|-----------|---------------|------------|
|                                      | 51-100                | 100-150   | More than 300 |            |
| No change                            | 0                     | 0         | 10            | 10         |
| Increased employment                 | 2                     | 0         | 10            | 12         |
| Reduced employment                   | 20                    | 28        | 20            | 68         |
| Skill training                       | 3                     | 0         | 0             | 3          |
| Formation of GDLC                    | 3                     | 4         | 0             | 7          |
| <b>Total</b>                         | <b>28</b>             | <b>32</b> | <b>40</b>     | <b>100</b> |

Source: Fieldwork, 2006

Some views from the in-depth interviews are presented below.

The first was by a 52 year old Operations Manager who remarked as follows:

“There has been a reduction in the number of labour intake for jobs. With container operations, the labour composition is

four Dockers on board (vessel) and four Dockers on the quay while with bagged cargo operations; there are twelve Dockers on board and eight Dockers on the quay". (52 year old Operations Manager).

A 31 year old billing officer felt that various functions performed by labour have been reduced due to containerisation and this to him accounts for the fall in labour figures. He remarked that:

"Containerised cargo does not need much (human) labour since machines perform all the work. The few people around go there to record and supervise the machine operators. Most markers and sorters have been made redundant".

Though most respondents alluded to the fact that containerisation had led to reductions in labour intake in most of the firms, others also saw the brighter side of the change. For instance, a 38-year-old stevedore officer reported that

"While the change has led to a reduction in labour intake in the port environment, it has created employment at the cargo destinations, especially in the container depots outside the ports."

To some, the phenomenon depicts a situation where skilled labour is fast replacing unskilled labour. Skill training among dock workers is seen among three per cent of the respondents as a result of the advent of containerisation in Ghana. This was supported by views expressed by the focal persons. For instance, a 57-year-old Operations Manager felt that, "it had led to skill training and development in the latest technology"

Tilly and Tilly (1998) argued in the case of stevedores in the United States that, although containerised cargo-handling has drastically changed routines and productivity on the waterfront with a consequent decline in the total number of workers, it had actually sustained or enhanced some of the conditions that favour workers' collective action: location in firms with substantial market power, high capital-labour ratios, extensive worker discretionary control over firm capital, high impact of workers' performance on the firm's aggregate performance, and institutions confirming worker rights. The carryover of reputations and relations from the days of conventional handwork has given stevedores additional advantages in asserting their rights.

In order to test Tilly and Tilly's (1998) assertion, respondents were asked to rank the individual labour conditions as they apply to dock workers in Ghana. The result is presented in Table 16 below.

**Table 16: Effect of Containerisation on Market Power of Labour**

| Rank      | Stevedore workers | Directors and managers |
|-----------|-------------------|------------------------|
| Excellent | 9                 | 0                      |
| Good      | 15                | 0                      |
| Fair      | 22                | 5                      |
| Poor      | 31                | 5                      |
| Very poor | 23                | 0                      |
| Total     | 100               | 10                     |

Source: Fieldwork, 2006

On the issue of containerisation leading to increased market power of labour, 50 per cent of the Directors and Operation Managers said it was fairly operating in the Ghanaian situation while the other half said it poorly operates in Ghana.

The result is inconclusive as to whether containerisation which is more mechanically based has reduced the market power of labour. The stevedoring workers however had a wider view of the situation. Out of 100 respondents, 54 put forward the claim that containerisation has led to a reduction in the market power of labour. While 31 respondent out of them said the market power of labour has been rather poor due to containerisation, the other 23 saw themselves as having very weak (very poor) market power whether in wage determination or in arguing out a health care policy for themselves and their dependents.

They are closely followed by 22 per cent of the respondents who described the change as fair situation. To this group of respondents, the market power of stevedore labour had been somewhat affected positively by the advent and continuous usage of containers in the transport of cargo. Some 15 per cent scored "good" for containerisation promoting the market power of labour especially through labour union activities.

They however noted that though they are better organised now, they still do not have absolute power to determine their market value. Only nine per cent of the respondents agreed in total terms that containerisation has promoted or increased the market power of stevedore labour which can be manipulated by the workers to their advantage.

## Effects of Containerisation on Equipment

With the advent of containerisation, there has been increased investment in cargo handling equipment. According to the Ghana Association of Stevedoring Companies (GASCO 2004), none of the equipment is manufactured in Ghana and therefore has to be imported using foreign currencies. As part of the conditions for licensing new stevedoring companies and re-licensing the old ones, GPHA included the clause that the equipment fleet of operators will be inspected to ensure that they meet the optimum level of equipment needed to handle both general cargo and containers.

Respondents were asked the effect of containerisation on equipment and 77 per cent stated that containerisation had led to increased investment in cargo handling equipment especially in the area of container handling. However, these have not been without problems as a 45year-old Operations Manager put it:

“Container equipment is very expensive and the purchase has made things difficult for some of the (stevedoring) companies as they have to pay loans, interest on the loans and maintain the equipment”.

Another complained that “the high cost of acquisition of specialised equipment has affected cash flows”. Most of the companies had acquired equipment such as reach stackers, 10 tonne forklifts, articulated trucks, 40 tonne top lifters, spreaders and many others.

**Table 17: Selection of Acquired Equipment**

| Company                  | Equipment                  | Quantity      |
|--------------------------|----------------------------|---------------|
| Speedline<br>company     | Stevedoring 40T top lifter | 1             |
|                          | 40T Reach stacker          | 3             |
|                          | Tractor                    | 4             |
|                          | 8T forklift                | 2             |
| Golden Gate Stevedores   | Reach stackers             | 3             |
|                          | Spreaders (20T and 40T)    | 6             |
|                          | Terminal tractors          | 3             |
|                          | Trucks                     | 3             |
| Fountain View Stevedores | Reach stacker              | 1             |
|                          | Container spreaders        | 4             |
|                          | Forklift trucks            | 6             |
| Atlantic Port Services   | 45T Reach stackers         | 2             |
|                          | 40T top lifters            | 3             |
|                          | Terminal tractors          | 3             |
|                          | 16T forklift               | 1             |
| Dashwood Stevedores      | Reach stackers             | Not specified |
|                          | 40T Top lifters            | Not specified |
|                          | 28T forklift               | Not specified |
|                          | Terminal tractors          | Not specified |
| Gemini Stevedores        | Reach stackers             | Not specified |
|                          | 40T Top lifter             | Not specified |
|                          | 16T forklift               | Not specified |
|                          | Terminal tractors          | Not specified |

Source: Fieldwork, 2006



Table 17 shows six selected stevedoring companies and four of their acquired equipment for the handling of containers in various quantities. Most respondents in commenting on the acquisition of equipment by the stevedoring companies asserted that the equipment though helpful is very expensive. For instance, a 45 ton reach stacker costs USD 500 per unit. According to a Ghana Association of Stevedoring Companies (GASCO) report (2004), the stevedoring companies have invested a total of about USD 30 million in cargo handling equipment, most of the money acquired through bank loans.

From table 18, ten per cent of the respondents also attributed the underutilisation of some equipment to the increased use of containers.

**Table 18: Effects of Containerisation on Stevedoring Equipment**

| Effects                                   | Per cent |
|---|----------|
| Increased investment in equipment         | 77.0     |
| Underutilisation of some of the equipment | 10.0     |
| Pressure on existing equipment            | 3.0      |
| Inadequate equipment                      | 10.0     |
| Total                                     | 100.0    |

Source: Fieldwork, 2006

This is because equipment used in handling general cargo such as bagged cargoes are gradually being made redundant as more shippers resort to the use of containers. For instance, 40 per cent of cocoa beans, Ghana's main export, go through the Tema port out of which 75 per cent are containerised. Traditionally, cocoa beans were always stored and transported in bags.

According to the Ghana Ports Hand Book (2005), today, European buyers prefer to make savings on bags and labour by receiving their cocoa in bulk (containerised).

Pressure on existing equipment is another problem attributed to increased use of containers by three per cent of the respondents while inadequate equipment is cited by the remaining 10 per cent as the effect of increased use of containers.

### Competition among Stevedoring Companies

The desire to create a more competitive, market-based, transport and logistics system has led to the involvement of the private sector in the stevedoring industry in Ghana. In spite of this fact, in the Port of Tema, 49 per cent of the respondents thought otherwise (Table 19).

**Table 19: Competition among Stevedoring Companies on Employment Status**

| Response                                 | Employment status |           | Total      |
|--|-------------------|-----------|------------|
|  | Permanent         | Casual    |            |
| No competition due to quota system       | 32                | 17        | 49         |
| Competition in the purchase of equipment | 11                | 12        | 23         |
| Competition in service efficiency        | 17                | 11        | 28         |
| <b>Total</b>                             | <b>60</b>         | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

To them, there is very little competition among the stevedoring companies. This is because of the quota system currently in operation at the port. One respondent summarised it as follows:

“Presently, there is no direct competition among stevedores companies because GPHA allocates vessels according to the stevedore’s respective percentages” (38-yearold assistant operations manager).

This, to the respondents, has led to inefficiencies in the services rendered by some stevedoring companies.

On the other hand 23 per cent of the respondents agreed that there is some measure of competition among the stevedoring companies especially in the area of equipment acquisition. The following assertions by some respondents attest to this fact:

“Tremendous competition has been witnessed. Every stevedoring company is trying to have the most efficient equipment” (38-year-old stevedore officer)

“Shipping lines and their agents do not want delays so they always prefer to allocate their vessels to stevedoring companies with the requisite equipment” (48-year-old Accounts Officer).

### **Conclusion**

This chapter outlined changes that have been experienced in the stevedoring industry over the past decade. It came to light that there had been

increased private sector participation in the industry because more companies were given licenses to operate as part of the government's privatisation policies and the GPHA's ambition to become a landlord, taking oversight responsibilities rather than engaging in daily operations at the port. Another change has been in the area of acquisition of equipment by all the stevedoring companies. The study revealed that the stevedoring companies had made high investments in modern equipment and this had led to indebtedness for some of them because they took loans from banks.

The chapter also examined the changes that have occurred in the port in general and the stevedoring industry in particular as a result of containerisation. It was found out that containerisation has affected almost all aspects of the sea transport and the logistics sector. Prominent among these areas affected are port infrastructure, equipment, staff training, investments, labour issues and safety and security of cargo. On labour for instance, the study showed that containerisation has led to large scale unemployment due to the heavy reliance on machines and equipment for loading and discharging cargo. On the other hand it has led to skill training for labour to enable it handle the equipment more efficiently and improve the turn around time of container bearing vessels which call at the port.

Finally, it came to light that the formation of the Ghana Dock Labour Company had assisted in bringing all casual workers under one umbrella to form a dock pool from which all the stevedoring companies draw labour as needed. It has also given about 4000 people the hope of being hired on daily basis.

## CHAPTER SIX

### THE CONSORTIUM AND IMPLICATIONS FOR STEVEDORING

#### Introduction

Labour organisations such as the International Transport Federation (ITF) have stated clearly that they are not directly opposed to privatisation. Rather, the ITF stresses that the implications of privatisation are negative if labour is not enabled to participate in the restructuring. The ITF also acknowledges that the experience of privatisation varies from country to country (Marges: 1999) It is in sharing common experiences through consolidating labour networks that an ability to influence the nature of privatisation has and should continue to be sought. This argument is expanded upon below. The chapter also attempted to address the following objectives:

- i. Assess the knowledge and views of the stevedore workers on the Consortium;
- ii. Assess possible job losses in the stevedoring industry as a result of the Consortium takeover;
- iii. Assess the capacity of stevedoring companies for continuous container handling; and
- iv. Highlight the challenges for the stevedoring industry in Ghana.

## KNOWLEDGE OF THE CONSORTIUM AMONG STEVEDORING WORKERS

Communication is very important in any organisation that is result-oriented. According to Nwakafor (1989: 51), it is the means by which people are linked together in an organisation to achieve the common purposes for the (said) organisation. He further lists six uses of communication to the administrator, namely:

- i. Establish and disseminate goals;
- ii. Develop plans for achievement of goal;
- iii. Organise human and other resources efficiently and effectively;
- iv. Select, develop and appraise members of the organisation;
- v. Lead, direct, motivate and create a climate in which people want to contribute; and
- vi. Control performances.

When communication is not effective in an organisation whether formal or informal, the six attributes of effective communication become conspicuously disorganised. It is expected that any changes that affect employees of a particular industry must be effectively communicated to them. In the light of this, respondents were asked if they had fore knowledge of the consortium and what it represents. Their responses are summarised in Table 20.

A quarter of the respondents said the Consortium was made up of a group of companies including SDV and Maersk line. According to this category of respondents, the companies involved have been tasked with the management and operation of the container terminal. Fourteen per cent of the

sample agreed with the initial assertion that the Consortium was made up of a group of companies as mentioned above and stated in addition that the Consortium was to mobilise resources to build a container terminal at the Tema port.

**Table 20: Knowledge of Consortium**

| Response   | Sex       |          | Total      |
|--|-----------|----------|------------|
|  | Male      | Female   |            |
| Group of companies to mobilise resources to build container terminal | 13        | 1        | 14         |
| Group of companies to manage and operate container terminal          | 24        | 1        | 25         |
| Group of companies lobbying for the handling of container vessels    | 8         | 0        | 8          |
| Group of companies to build manage and operate container terminal    | 3         | 0        | 3          |
| Umbrella body for all private stevedoring companies                  | 9         | 1        | 10         |
| It is about divestiture  | 3         | 0        | 3          |
| Don't know/ not sure   | 37        | 0        | 37         |
| <b>Total</b>   | <b>97</b> | <b>3</b> | <b>100</b> |

Source: Fieldwork, 2006

Three per cent of respondents fused the two responses together and said the Consortium was made up of a group of companies who were to build,

operate and manage the container terminal for and on behalf of the Government of Ghana as part of the government's privatisation policies.

To another group of respondents who formed eight per cent of the workforce sample, the Consortium was made up of a group of companies whose main agenda was to lobby for container handling at the Tema port. To this group of respondents, the group of companies were to take over container handling from the stevedoring companies already operating at Tema.

Further assertions made include the view held by ten per cent of the sample who said that the Consortium is an umbrella body of all stevedoring companies currently operating in the Tema port. This view might be based on the fact that a Consortium was formed in 1986 when the GPHA together with some shipping lines and stevedoring companies partnered to form a container consortium called Container Handling Services Limited (CHSL) to handle containers at the Tema port. The shareholders of CHSL included Umarco Ghana Limited, Scanship Ghana Limited, Atlantic Port Services Limited, Speedline Stevedoring Company, Liner Agencies Ghana Limited (now Hull Blyth Ghana Limited) and Roro Services Ghana Limited. The companies had a 70 per cent share while the GPHA had a 30 per cent share in the joint venture. This company was incorporated in September 1986 and the certificate to commence business was issued on 5<sup>th</sup> November, 1986. However, this venture according to a Ghana Association of Stevedoring Companies report (GASCO 2004) suddenly collapsed.

Speculations that the Consortium is a comprehensive plan to diversify the port operation system, especially with container operations, is held by three per cent of the respondents as a step further towards GPHA's ambition to turn



the Tema port to a landlord port. On the other hand, 37 per cent of the respondents said they either did not know what the Consortium was about or had very little knowledge of its operations. A cross tabulation of employment status and knowledge of the Consortium as presented in Table 21 shows that 50 per cent of the casual workers interviewed had no idea of what the Consortium is all about as compared to 38.33 per cent of the permanent workers who said they had absolutely no idea of the consortium.

**Table 21: Respondents' Employment Status and Knowledge of the Consortium**

| Response   | Employment status |           | Total      |
|--|-------------------|-----------|------------|
|  | Permanent         | Casual    |            |
| Group of companies to mobilise resources to build container terminal | 5                 | 9         | 14         |
| Group of companies to manage and operate container terminal          | 25                | 0         | 25         |
| Group of companies lobbying for the handling of container vessels    | 8.0               | 0         | 8          |
| Group of companies to build manage and operate container terminal    | 3.0               | 0         | 3          |
| Umbrella body for all private stevedoring companies                  | 2                 | 8         | 10         |
| It is about divestiture  | 0                 | 3         | 37         |
| Don't know/ not sure   | 17                | 20        | 3          |
| <b>Total</b>   | <b>60</b>         | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

The official the researcher interviewed at Maersk Ghana Limited clearly evaded almost all questions on the Consortium but was willing to answer other questions which were not directly related to the partnership.

From the various responses given it is clear that the formation and actual operations of the Consortium are shrouded in secrecy and there is controversy as to its actual operations, confirming findings in the initial literature on the opaque nature of the partnership.

It is evident that some top management of the GPHA who will be working directly with the Consortium are not sure of what it represents. Asked about the Consortium, a GPHA official remarked that he did not have much information about it beyond that it is made up of Maersk and SDV. When three of the key persons in GPHA were also asked when the operations of the Consortium would begin, they gave varied dates suggesting inconsistencies and little knowledge about the Consortium.

#### **GOVERNMENT AND PORT AUTHORITY'S ROLE**

Until the 1990s most forms of transport infrastructure was either owned and operated by public monopolies or closely supervised by central governments (Estache, 2001: 85). The situation is now different. However, increased private sector investment in transport infrastructure does not mean that the state has no role in its activities. Governments still have defined policies and strategies for the sector, for example, they finance socially valuable projects that are too risky to attract private investment at viable rates of return. In addition, government acts as commissioning parties and lay down the characteristics of the project. Public-private partnership assumes a different

role for the government. It has been argued that it transforms the role from that of a public financier and public entrepreneur to that of a buyer and director (AVV, 1997 as quoted in Ham and Koppenjan, 2002). According to Ham and Koppenjan (2002) public-private partnership assumes the government takes up yet another role which is that of an equal partner. Ham and Koppenjan used this as a basis for defining public-private partnerships as co-operation of some durability between public and private actors in which they jointly develop products and services and share risks, costs and resources which are connected with these products and services.

In the Consortium, government's interest is represented by the GPHA with a 30 per cent share while the private companies (Maersk and SDV) have 70 per cent between them. Asked how different the new management was from the direct GPHA supervision, an official of the Port Authority (GPHA) replied that

“The new management is a totally private entity which GPHA can only regulate or monitor its activities and not direct those activities”.

This suggests that GPHA will play a mainly supervisory role on behalf of the Government and people of Ghana.

The public sector has redefined its role in the port and shipping industries through privatisation and corporatisation schemes with much attention now paid to governance issues in ports and shipping. In the tradition of land lord ports, a system Ghana is gradually adopting, it is tempting to presume that the port authority would act as a facilitator in the transport chain. When respondents were asked of the role and benefit of GPHA's involvement

in the Consortium, 27 per cent said they saw absolutely no benefit in their participation and would rather prefer a purely private entity instead of a public private partnership as currently arranged (Table 22).

**Table 22: Role and Benefit of GPHA's Involvement in the Consortium on Employment Status**

| Role / Benefit  | Employment status |           | Total      |
|---|-------------------|-----------|------------|
|   | Permanent         | Casual    |            |
| Monitoring and supervision                            | 16                | 4         | 20         |
| No benefit  | 9                 | 18        | 27         |
| Interference with privatisation                       | 11                | 0         | 11         |
| Ensuring the continuous existence in the industry     | 6                 | 0         | 6          |
| Means of reducing their staff                         | 4                 | 0         | 4          |
| Means of monopolising the industry                    | 2                 | 0         | 2          |
| Representing Ghana's interest                         | 6                 | 14        | 20         |
| Taking charge of royalties and generating more income | 4                 | 4         | 8          |
| Don't know  | 2                 | 0         | 2          |
| <b>Total</b>  | <b>60</b>         | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

Some workers did not see any benefit in the Consortium. They rather felt it would result in the loss of revenue to the government due to increased repatriation of profits by the foreign companies. Some of the respondents (11 per cent) specifically pointed out that there was interference with privatisation with the presence of the GPHA while two per cent felt it was a ploy by GPHA

to monopolise the operations of the container terminal. This claim seems to have been buttressed by a 38-year-old stevedore officer who remarked that

“They (GPHA) want to continually control the port operations in disguise even though according to them they should have been landlords by 2003”.

However, responses were not all negative as 20 per cent of the respondents agreed that GPHA’s involvement is very important especially in the area of monitoring and supervision of the Consortium’s activities and operations. Another 20 per cent held the view that GPHA’s participation was to mainly represent the interest of the Government and people of Ghana and also attend to security concerns that have been raised by a section of the public ever since the formation of the Consortium was brought to the public domain.

Ultimately Ghana’s investment in the terminal cannot be ruled out as a major concern which GPHA’s involvement will help to protect. A 30-year-old respondent said:

“As a majority investor who has only 30 per cent share, they (GPHA) can not derive any better benefit”.

Some eight per cent also said GPHA’s involvement is mainly to take charge of royalties to be paid by the private companies when the operations of the consortium comes into full force by the middle of 2006. They also felt the partnership will assist GPHA to generate additional income from activities hitherto un-levied at the port.

From the responses, it is clear that most workers do not know the actual role that GPHA is playing currently or is expected to play in the management and operation of the new dedicated container terminal. Their

ignorance can be attributed to the lack of education on the issue among the stevedoring companies. Some of the respondents even felt it was a ploy by GPHA to reduce its staff strength. Workers at the port have been left to speculate as officials of the GPHA have kept tight lips on the formation, operation and management of the Consortium.

### **JOB LOSES**

One of the key concerns expressed since the establishment of the Consortium was that people would lose their jobs. This was partly confirmed when some of the respondents said there had been massive reduction in the labour force at the port. According to one respondent, sixteen men used to be engaged to work a hook. However containerisation has now reduced it to eleven men and it is expected that the number will further be reduced to four as the Consortium modernises its operations.

When respondents were asked if they anticipated any job losses in the stevedoring industry as a result of the takeover, 87 per cent responded in the affirmative, 11 per cent disagreed with the assertion while 2 per cent of them were not sure. Asked for reasons to support their assertion, 56 per cent said that the 30 per cent of cargo, which is estimated to be about 1.5 million metric tonnes of mainly non-containerised cargo, will be allocated to the stevedoring companies. This will not be enough to sustain their business and maintaining the staff will be an arduous task considering the large cuts in their revenues. They anticipate that the stevedoring companies will lay off workers so as to reduce their overhead cost and stay in business.

Eighteen per cent of the stevedoring workers feared that the art of container handling will be highly mechanised if the Consortium takes over and this will lead to a reduction in the labour needed to handle the container (Table 23).

**Table 23: Reasons for Anticipated Job Losses On Company's Total Labour Force**

| Reason                                | Company's total labour force |           |               | Total      |
|---------------------------------------|------------------------------|-----------|---------------|------------|
|                                       | 51-100                       | 101-150   | More than 300 |            |
| 30 percent can not sustain industry   | 20                           | 25        | 11            | 56         |
| Stevedoring will be highly mechanised | 2                            | 4         | 12            | 18         |
| Depends on government policies        | 2                            | 0         | 0             | 2          |
| Depends on Consortium's policies      | 0                            | 0         | 13            | 13         |
| Not applicable                        | 4                            | 3         | 4             | 11         |
| <b>Total</b>                          | <b>28</b>                    | <b>32</b> | <b>40</b>     | <b>100</b> |

Source: Fieldwork, 2006

Over the years the improvement in technology has led to a high incident of job cuts in various fields of operations and the stevedoring industry is no different. The more machines companies rely on for their operations, the less the labour needed and the higher the job redundancies.

Whereas 13 per cent of the respondents who belonged exclusively to companies with a labour size of more than 300 thought it would depend on policies to be formulated by the Consortium itself including opening up the partnership to the local stevedoring companies, 2 per cent of the respondents who were both from companies with a labour size of less than 100, said their employment status after the Consortium takeover will depend on government policies.

Another 11 per cent of those interviewed were of the view that the operations of the Consortium could not lead to job losses. Varied reasons were assigned to this assertion, not least the nature of the Consortium's policies for employment. According to a GPHA official, the Consortium has requested 500 workers from GPHA to aid them in their operations. This confirms Marges (1996) assertion that global shipping alliances are also developing commercial relationships which save costs by sharing equipment, terminal space, and even labour.

Workers from the stevedoring industry are therefore hoping that they would be absorbed into the Consortium should they be laid off as part of the local companies attempt to reduce their overhead cost. To some of the workers, government could compel the Ghana Port Services Consortium (GPSC), to absorb the labour to be laid off by the stevedoring companies.

#### **Category of Stevedoring workers likely to lose jobs**

It is very important to discuss the category of workers to be most affected should there be job losses. Discussion on this revealed that casual workers will feel the greatest impacts of job losses as a result of the operations



of the Consortium (Table 24). Nineteen out of 21 respondents aged 51-60 assented to this and were supported 24 out of 46 aged 31-40 and 16 out of 28 aged 41-50 years. The reasons for this include the fact that limited labour will be needed for the operations of the modern equipment currently in use. One piece of such equipment is the gantry crane. Containerised cargo vessels that call at the port will be handled with gantry cranes which are faster and more efficient than other equipment such as reach stackers (which are currently used by the stevedoring companies for discharging and loading containers).

**Table 24: Category of Workers Likely to Lose Jobs on Age of Respondents**

| Category  | 21-30 | 31-40 | 41-50 | 51-60 | Total |
|-----------|-------|-------|-------|-------|-------|
| Permanent | 5     | 12    | 12    | 2     | 31    |
| Casual    | 0     | 24    | 16    | 19    | 59    |
| Both      | 0     | 10    | 0     | 0     | 10    |
| Total     | 5     | 46    | 28    | 21    | 100   |

Source: Fieldwork, 2006

Since limited labour will be needed, neither the Consortium nor the nine stevedoring companies will need the extra labour from the dock pool (Ghana Dock Labour Company). This is because the Consortium had already requested 500 workers from GPHA and did not need additional hands. Also, the stevedoring companies with reduced revenue might be struggling to sustain permanent staff and will therefore not be able to recruit additional labour to work on an already reduced consignment. Another factor which is believed to have placed casual workers at a disadvantage is the use of a highly mechanised

system of operation by the Consortium. It is apparent that there will be an increase in the demand for skilled labour of which most casuals are not.

### TRAINING IN THE STEVEDORING INDUSTRY

When the respondents were asked about training received on their jobs, 70 per cent of the permanent workers said they have been duly trained while 30 per cent said they had not attended any formal training sessions on the job. Among the casual workers, 55 per cent said they had been taken through some level of in-service training while the rest had not been formally trained on their jobs (Table 25)

Table 25: Employment Status on Training among Workers

| Category  | Yes  | No | Total |
|-----------|------|----|-------|
| Permanent | 42.0 | 18 | 60    |
| Casual    | 22   | 18 | 40    |
| Total     | 64   | 36 | 100   |

Source: Fieldwork, 2006

When respondents were asked if they could still fit into the stevedoring industry in the face of technological advancements especially made possible with the advent of containerisation, 98.3 per cent of the permanent workers gave a positive response. This might be due to the fact that a permanent worker is more likely to attend training sessions in the use of the sophisticated equipment than a casual worker who automatically belongs to the pool and normally used for general cargo discharges. More than a quarter (27.5) of the

casual workers interviewed said they could not fit into the stevedoring industry due to the current technological advancement in the stevedoring business while 72.5 said they could fit in well regardless of the technological advancement.

### NEW CONTAINER TERMINAL AND MANAGEMENT TEAM

The desire to create a more competitive, market-based system has led to the involvement of the private sector in infrastructure investments. Containerisation has led to the construction of increasingly larger vessels while market structure in liner shipping has resulted in the formation of alliances of container carriers. According to Wiegmans et al (2002), these developments are forcing port authorities and container terminal operators to also increase their scale. The Ghanaian situation is no different as seen in Table 26.

**Table 26: Reasons for New Dedicated Container Terminal on Employment Status**

| Reason  | Employment status |           | Total      |
|---|-------------------|-----------|------------|
|   | Permanent         | Casual    |            |
| To allow bigger vessels to call at port             | 2                 | 4         | 6          |
| Most cargoes are containerised                      | 20                | 8         | 28         |
| Development of port to meet international standards | 13                | 0         | 13         |
| Employment creation                                 | 2                 | 0         | 2          |
| Decongestion of port                                | 23                | 28        | 51         |
| <b>Total</b>  | <b>60</b>         | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

Congestion was cited by 51 per cent of the respondents as one of the main challenges facing the Port of Tema. As one GPHA official put it:

“The port is facing a lot of challenges because it is very small in terms of infrastructure. Due to that and the increased volumes of traffic, there has emerged a serious challenge for space”.

The need for a new terminal was supported by many of the respondents who thought that will solve the problem of congestion at the port.

Container terminals form a central part of the transport infrastructure and its development leads to the overall development of the port system. Josephine Nkrumah, the Executive Secretary of the Ghana Association of Stevedoring Companies confirmed this in a remark that the association (GASCO) had no objection to the development of ports in line with global trends and to increase their capacity to accommodate the growing traffic of containerised cargo. She further said that the association was conscious that the said growth amplifies the pivotal role of a port to the development of the nation due to its potential as a revenue generating asset.

Like Nkrumah, the respondents put forward various reasons why the port needed a new container terminal. Some 51 per cent of them mentioned the problem of congestion at the port of Tema while 28 per cent believed that the increase in the volume of containerised cargo has necessitated the construction of the dedicated terminal. This partly confirms Pedersen's (2000:6) assertion that the growth of container traffic requires increasing investments in ports and freight handling equipment and a growing administrative capacity to operate the ports efficiently. To a section of the respondents, the provision or

construction of the new dedicated container terminal was in line with plans of developing the Tema port into a hub.

As noted by Notteboom and Rodrique (2005:2), increased cargo availability has triggered changes in vessel size resulting in the emergence of new breed terminals. Six per cent of the respondents believed that the construction of the terminal is to allow bigger vessels to call at the port while two per cent attributed it to employment creation. Indeed, Wiegmans et al (2002:10) have asserted that government involvement in container terminal development can be justified by the need for employment creation.

The container terminal is to be managed by a new team. Asked if there was a problem with the current management team, a port official said no but continued to indicate that the port authority has adequate, well trained, and well equipped port operators who can turn the worst situation into a good one. When he was further asked why the need then for a new management team, he said it originated from the fact that the government did not want to have a hand in doing business so they invited the private sector to operate the terminal.

Ghana is slowly moving away from its status as a service port to a land lord port. According to Notteboom and Rodrique (2005), with a land lord port, the port authorities provide the necessary port infrastructure including quays, locks, docks and yards. Governments on their part, provide financial support in the form of subsidies and loans while the private sector is responsible for cargo handling and port services, storage warehousing and all investments in superstructure.

Respondents were also asked to state if Ghana was ready and able to manage the dedicated container terminal. As much as 89 percent responded in

the affirmative (Table 27), emphasising the capacity of Ghanaians to successfully manage the terminal without foreign intervention. They cited the Tema Container Terminal (TCT) as an example of a local initiative that is thriving well under indigenous management.

**Table 27: Reasons for Ghana's Readiness and Ability to Manage the Terminal**

| Reason                               | Frequency | Per cent |
|--------------------------------------|-----------|----------|
| Thriving private local entrepreneurs | 29        | 32.6     |
| High investment in project           | 27        | 30.3     |
| Have skills and technical know how   | 30        | 33.7     |
| More experts can be trained locally  | 3         | 3.4      |
| Total                                | 89        | 100.0    |

Source: Fieldwork, 2006

Some 33.7 per cent of the respondents who said Ghana has the ability to manage the container terminal attributed their assertion to the fact that Ghanaians possess the requisite skills and know-how to manage the terminal well without the need for foreign intervention. While 27 per cent also believed that the high investment the government had made in the construction of the terminal indicates the nation's readiness to manage it in order to reap positive returns on the investments.

Another section of the respondents (9 per cent) strongly believed that Ghana can and would be able to manage the new terminal if and only if it is given to private companies (specifically, indigenous companies) and not the

government or expatriate companies. Some cited capital flight as a basis for this assertion. They thought that much of the profits will be repatriated to home countries of expatriates if they (foreign companies) are given the right to manage the new terminal. The fear of others was that when given to the foreign companies, only expatriates will be given the opportunities to occupy top management positions in the Consortium and respondents pointed to evidences of this occurrence in some companies that had been divested and given to foreign companies to run. A 38-year-old stevedore officer summed it up for this category when he said "it can be best handled by Ghanaian private businessmen". Three per cent of the respondents also believed that though Ghana has the ability, there will be the need to train more people to handle the equipment better.

All nine per cent of respondents who initially said Ghana was not ready to manage the new facility attributed it to the existence of a bad maintenance culture among Ghanaians. They said it is common knowledge that Ghanaians love and hail new projects but do very little to maintain most infrastructure after they had been commissioned. To such people, building the terminal and giving it to a foreign private partner to manage and pay royalties is the best option.

#### **CAPACITY OF STEVEDORING COMPANIES FOR CONTINUOUS CONTAINER HANDLING**

It has been asserted by the Ghana Association of Stevedoring Companies (GASCO) that when the consortium starts its operations by the

middle of 2006, the sector to be most affected would be the stevedoring industry which employs over 4000 workers (including Ghana Dock Labour Company). The sections below addresses issues relating to the stevedoring companies.

### **Ability to thrive**

When ten top officials, mostly Directors and Operations Managers of the stevedoring companies were asked of their companies' capacities to continue in the face of current technological advancement, 90 per cent said their companies had the requisite capacities to operate. Only one cited inadequacy of equipment as the reason why his company could not compete with the multinational companies. Nine other top officials suggested that they could survive and adapt to changes the stevedoring industry is currently undergoing. Some 77 per cent said they could stand up to any challenge in the industry because they had qualified management and well-trained staff. They also possessed modern equipment which could pass as state-of-the-art technology. A 52-year-old operations manager captured the ability of his company to stand the test of time as follows:

“We have a highly qualified management team which is prepared to face any challenges that come our way”.

Another felt with good planning, they possessed the requisite capacity to continue operations in the face of current technological advancement. While accepting the issues raised, the question is, whether good planning and possessing the needed skills and equipment could save the nine stevedoring



companies from collapsing if the Consortium took over 70 per cent of the job they currently handle?

Surprisingly, when asked about the future of their equipment (container handling), eight out of the ten top executives said the container handling equipment might be left idle. A 60-year old general manager said:

“The equipment will be grounded and left idle if it is not hired by the Consortium”.

In a similar response, a 44 year old stevedore manager said:

“They (equipment) will be redundant as they are specialised equipment for use in container handling”.

The most disturbing of these responses was from a 57-year-old operations manager who said:

“The equipment will be idle and we will not be able to repay the loans we took for their acquisition”.

Only two out of the ten said their equipment will still be in use. A 38-year-old assistant operations manager declared that “we have an off-port terminal (Atlas) where they would be redeployed” while another said

“Only berth one and two have been converted to dedicated berths, the other berths will be handled by the stevedoring companies”.

The last response can be contested on the grounds that container carrying vessels will be diverted to the dedicated berths (1 and 2) and not the other remaining berths. From the responses given above it is clear that the future of most of the stevedoring companies really hangs in the balance. Only

a few have plans on what use they could put their equipment to after the takeover.

#### Companies' effort to ensure survival of the stevedoring industry

Though the odds seem to be against the stevedoring companies, they are vigorously fighting for their survival in the industry. Asked how the companies are preparing to ensure the continued existence of the stevedoring industry, 20 per cent said they were looking up to their umbrella body which is the Ghana Association of Stevedoring Companies (Table 28). The Association is still negotiating with the government to either include its members in the Consortium or take a second look at the entire agreement in order to save the stevedoring companies from imminent collapse.

As of now the association has not made any headway with its proposals even though a petition dated November 22, 2004 was sent to the Ghana Maritime Authority (GMA), the apex body in the Ghanaian maritime industry to review the issue of the Consortium as part of the numerous challenges being faced by the stevedoring companies. The GMA recommended that GPHA should give stevedoring companies, as indigenous investors, the same conditions and opportunities as the present participants. This recommendation has not been followed and should be of concern to the country.

**Table 28: Strategies to Ensure Survival of the Stevedoring Industry on Company's Years of Operation**

| Strategy   | Years of company's operation |          |          | Total     |
|--|------------------------------|----------|----------|-----------|
|  | 1-5                          | 26-35    | 30-35    |           |
| Looking up to GASCO                                  | 2                            | 0        | 0        | 2         |
| Exploring possibility of investing in other business | 0                            | 1        | 1        | 2         |
| Reduce staff strength                                | 1                            | 0        | 0        | 1         |
| Strive to be part of consortium                      | 3                            | 0        | 0        | 3         |
| Skill development                                    | 0                            | 1        | 0        | 1         |
| Don't know   | 1                            | 0        | 0        | 1         |
| <b>Total</b>   | <b>7</b>                     | <b>2</b> | <b>1</b> | <b>10</b> |

Source: Fieldwork, 2006

### **Relocating resources across spatial barriers**

Apart from coordinating with GASCO, 30 per cent of the respondents mainly from companies which have been in operation for 1-5 years, said they were personally striving to be a part of the Consortium, an initiative which at this stage looks more bleak than bright. However, Twenty per cent of the top executives interviewed, whose companies had been in operation for a longer period (26-35 years) opted for investment in other businesses by their respective companies. Even though this group of respondents did not state the actual businesses they had planned investing in, they were quite optimistic that it will be the best to move into other businesses to save their companies from imminent collapse. As one Assistant Operations Manager put it:

"The stevedoring industry is fast declining, continuity will mean smaller size activities. The future will be to divert to other activities".

In their article Port Regionalisation: "Towards a New Phase in Port Development", Notteboom and Rodrigue (2005) suggested that the private sector is indeed broadening the geographical scale of its activities and as a result many of the stevedoring companies and freight forwarders have added inland terminal operations to their business in a bid to strengthen their position in the market. This suggestion may as well go to stevedoring companies in Ghana in the face of their current challenges they face in their stevedoring operations. Others may want to stay on the 30 per cent estimated non-containerised cargo which will still be available for handling by the nine stevedoring companies. However, when respondents were asked if revenues from that could sustain their business, they all said it could not. One even said revenue from that would not be enough to pay for their overhead cost let alone consider profits.

A company's ability to invest/divest or relocate production across spatial barriers is a very important determinant of its capacity to survive changes in its conditions of operations.

Eighty per cent of the top executives of the stevedoring companies said it will be difficult to relocate production or services across spatial barriers (Table 29) even though almost all the stevedoring companies have branches in the port of Takoradi which is Ghana's oldest commercial port.

**Table 29: Company's Ability to Invest/Divest or Relocate Production on Company's Years of Operation**

| Ability to invest/divest or relocate business | Years of company's operation |          |          | Total     |
|---|------------------------------|----------|----------|-----------|
|   | 1-5                          | 26-30    | 30-35    |           |
| Easy  | 0                            | 0        | 1        | 1         |
| Difficult                                     | 6                            | 2        | 0        | 8         |
| Impossible                                    | 1                            | 0        | 0        | 1         |
| <b>Total</b>                                  | <b>7</b>                     | <b>2</b> | <b>1</b> | <b>10</b> |

Source: Fieldwork, 2006

Most of the company heads said it will be difficult to relocate their businesses or invest in others. This response came mostly, from companies who had been operation for less than six years. Another said it will be absolutely impossible to relocate its production to another geographical area, and for them the only solution will be joining the Consortium, or fold up. One of the respondent however said it will be easy to relocate production across spatial barriers. To them, they believed that they had the ability to invest or divest easily or reinvest in any other business within the same geographical area.

Relocating, as rightly observed by most of the companies, will not be easy especially since Ghana has only two major ports (Tema and Takoradi) from which all but three (CTS, FVS and ASC) of the stevedoring companies are already operating. The dry port (inland) of Bonkrah is still under construction. Nevertheless, both Tema and Takoradi can make do with additional inland terminals such as Antrak's Tema Container Terminal (TCT).

Looking out for people's needs and satisfying them is the core function of service providers and this should propel some of the stevedoring companies to invest in inland container terminals since that promises to be a viable business.

### **CHALLENGES OF THE STEVEDORING INDUSTRY IN GHANA**

The stevedoring industry has faced many with challenges. In conducting the present research, the challenges were categorized under two, general problems facing the industry as a whole and challenges facing individual companies in the industry.

#### **General challenges**

The majority of the respondents (51 per cent) mentioned imminent job losses as the greatest challenge facing the stevedoring industry (Table 30). It is significant to note that all casual workers cited this as the greatest challenge being faced. This is because they anticipate that the revenues from the non-containerised cargo, which forms about 30 per cent of the total throughput at the Tema port, will not be enough to sustain the nine stevedoring companies. To the workers, their jobs are on the line because they anticipate that management of the stevedoring companies will terminate their appointment as a measure to save their businesses from collapsing.

Another general challenge cited by 15 per cent of the respondents (mainly permanent workers) was GPHA's involvement in the stevedoring industry. The Ghana Ports and Harbours Authority has a 25 per cent shareholding in stevedoring activities at the Tema Port and this is seen as a contradiction to GPHA's idea of becoming a landlord and a regulator because

such activities are normally left for private investors in most ports that practise the landlord system.

**Table 30: General Challenges Facing the Stevedoring Industry on Employment Status**

| General Challenges                              | Category  |           | Total      |
|---|-----------|-----------|------------|
|   | Permanent | Casual    |            |
| No challenge                                    | 5         | 0         | 5          |
| Imminent job loses                              | 11        | 40        | 51         |
| 25 percent royalty too high for companies       | 7         | 0         | 7          |
| Involvement of GPHA in stevedoring              | 15        | 0         | 15         |
| No pre-financing by shipping lines              | 10        | 0         | 10         |
| Idle casual labour when there are no vessels    | 2         | 0         | 2          |
| Lack of competition among stevedoring companies | 2         | 0         | 2          |
| Quota system inequalities                       | 5         | 0         | 5          |
| Many/multiple challenges                        | 3         | 0         | 3          |
| <b>Total</b>                                    | <b>60</b> | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

The most worrying aspect of this is that GPHA acts as the body that allocates vessels to be handled by each stevedoring company including itself on a daily basis. Some of the respondents accused the GPHA of allocating vessels with the most containers to itself and therefore accused them of manipulating the system to their advantage. It must however be noted that each company has specific quotas of cargo allotted to it under the current system.

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| 25 percent royalty too high for companies       | 7         | 0         | 7          |
| Involvement of GPHA in stevedoring              | 15        | 0         | 15         |
| No pre-financing by shipping lines              | 10        | 0         | 10         |
| Idle casual labour when there are no vessels    | 2         | 0         | 2          |
| Lack of competition among stevedoring companies | 2         | 0         | 2          |
| Quota system inequalities                       | 5         | 0         | 5          |
| Many/multiple challenges                        | 3         | 0         | 3          |
| <b>Total</b>                                    | <b>60</b> | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

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Another problem that was cited by seven per cent of the respondents is the high royalties paid by the stevedoring companies to GPHA. Payment of royalties was instituted by the Port Authority to ensure that stevedoring companies make a direct monetary contribution towards port construction and development. Initially the royalty was \$1.10 per tonne of cargo handled and therefore the net royalty paid monthly by the stevedoring companies to the GPHA was \$1.10 multiplied by the tonnage handled by the company within that month. In 2002, the royalty level was reviewed and the basis changed from tonnage to gross earnings which in itself include other revenues such as delays and overtime of staff. Workers complained that the current 25 per cent royalties being paid to the GPHA by the stevedoring companies is seriously affecting their revenue generation. A 38-year-old stevedore officer said:

“The GPHA is playing a divide and rule tactic. In order to sabotage the private stevedoring companies, it is weakening the financial base of the private companies through high royalties paid to them by these companies. 25 per cent is paid on every vessel we handle while tariffs have not been changed for a while”.

Non pre-financing of stevedoring activities by the shipping lines and their agents was cited by 10 per cent of the respondents as a problem the stevedoring industry is currently facing in their operations. These respondents believed that shipping lines or their agents must at least pre-finance activities of the stevedoring companies in order to help them offer more efficient services to them. With the current practice, the stevedoring companies are paid after service delivery.

Other problems faced by the industry as enumerated by the respondents include inequalities in the quota system (five per cent), idleness among casual workers when there are no vessels (two per cent) and lack of competition among stevedoring companies (two per cent). As stated in preceding chapters, the Tema port runs a quota system for the allocation of vessels to be handled by all stevedoring companies including the GPHA. Some of the respondents questioned the basis for the allocation of quotas to the companies because some companies had higher quotas than others. The GPHA has plans of abolishing the quota system and reintroducing the free for all or the market system. The initial introduction had to be aborted only a month after its introduction due to problems encountered as has been elaborated in Chapter One. The issue of lack of competition might worsen when the Consortium begins its operations because the assignment of infrastructure to terminal operators in large blocks, which is quite unlike the open access stevedoring arrangement practised in Ghana until now, will restrict competition from new entrants. Wiegman et al (2002) made a similar observation in his study of some selected ports in Europe where they found out that in most container ports, there was only one container operator.

All casual workers in the port of Tema are employed by the Ghana Dock Labour Company (GDLC). This is a company that is jointly owned by all stevedoring companies and the GPHA and serves as a labour pool for these companies. The company was created to cut down on the expenditure on wages and salaries of workers by the stevedoring companies but, at the same time, maintain a ready pool of labour to be used as and when needed.

Officially, the stevedoring companies are not supposed to have casual workers in their individual companies even though investigations by the researcher showed that some of the companies had flouted this rule. Currently, the GDLC employs over 3800 casual workers some of whom had been working with the GPHA for long periods. They are basically rendered redundant since they have not been selected to work or attend to vessels.

When the casual workers were interviewed, a number of them complained that most of them go without jobs for several weeks due to their large numbers, (over 3800 workers). To them a workers ability to ensure that he gets selected from the pool daily plays a pivotal role in ensuring his survival because they are paid only when they get selected for a job. Some are quite skilled as a result of experiences acquired over the years as tally clerks, winch men and other stevedoring related duties.

### **Individual challenges**

Individual companies in the stevedoring industry are faced with a number of challenges that hinder their smooth growth. One of these was found to be related to the health and safety of workers. Stevedoring is generally regarded as a risky profession especially where safety and protective wear such as industrial boots, crash helmets and quality hand gloves are not provided. As Table 31 shows, the individual workers faced with lot of challenges in their companies.

**Table 31: Challenges Facing Individual Stevedoring Companies on employment status**

| Challenges                                      | Employment status |           | Total      |
|---|-------------------|-----------|------------|
|   | Permanent         | Casual    |            |
| No challenge                                    | 5                 | 0         | 5          |
| Lack of logistics                               | 12                | 0         | 12         |
| Managements attitudes towards junior staff      | 16                | 0         | 16         |
| Lack of promotion                               | 5                 | 0         | 5          |
| High capital investment has led to indebtedness | 2                 | 0         | 2          |
| Low remuneration                                | 5                 | 5         | 10         |
| Lack of training                                | 7                 | 4         | 11         |
| Health and safety of staff                      | 4                 | 31        | 35         |
| Managements support for sound industrial peace  | 3                 | 0         | 3          |
| Many/multiple challenges                        | 1                 | 1         | 1          |
| <b>Total</b>                                    | <b>60</b>         | <b>40</b> | <b>100</b> |

Source: Fieldwork, 2006

Management's attitude towards junior staff was mentioned by 16 per cent of the respondents as appalling. They felt that their needs were sometimes disregarded by their employers and this to some of the respondents portrayed a low support for sound industrial peace by management. Others complained of low remuneration especially in the case of casual workers.

Some also complained that they are often left out when GPHA organises training seminars because the Port Authority commits its resources

in training Operations Managers and Stevedoring Managers leaving out the junior workers.

According to two per cent of the respondents, high capital investment in equipment has led to indebtedness of their companies and this has had a negative impact on the services they render to their clients. In all, stevedoring companies have invested US\$30 million in cargo handling equipment and other supporting systems. These funds were raised from bank loans with their attendant interest and collaterals.

### **THE FUTURE OF THE STEVEDORING INDUSTRY**

From the preceding section, it can be deduced that the stevedoring industry in Ghana is faced with many challenges with the most pressing issue being the operations of the Consortium. The stevedoring companies' ability to survive this will to a large extent determine the future of the industry.

#### **Dark clouds**

Top executives of the stevedoring industry were sharply divided on the future of the industry. Half of them postulated that stevedoring as it stands today is not the business of the future this is because the industry is choked. Twenty percent of the top officials argued that the industry is crowded with too many operators who are likely to collapse it with or without the operations of the Consortium. As stated by a 38-year old stevedore officer:

“I perceive a bleak future for the industry especially considering the number of operators in Tema port. I believe

stevedoring should be incorporated with haulage and warehousing to sustain the industry".

An official of the GPHA partly blamed this on the Port Authority who he accused of issuing licenses to nine companies when it knew it had plans to bring in the Consortium to take over the handling of containers at the port. As he noted, at the end of year 2000 there were only three private stevedoring companies at the port handling cargo alongside the GPHA. These were Atlantic Port Services (APS) with a quota of 15 percent, Speedline Stevedoring Company (SSC) with a quota of 10 percent and Express Maritime Services (EMS) with an initial quota of 25 percent which was later reduced to 10 percent. Five more companies were licensed between 2001 and 2002 while EMS was later split into two companies, Advance Stevedore Company (ASC) and Gemini Maritime Services (GMS) to bring the number currently to nine private stevedores operating alongside the GPHA. Some of these companies have quotas as low as 5 per cent and with the coming into force of the Consortium, all these companies are going to participate in the handling of the remaining 30 percent throughput (non-containerised cargo) according to their respective quotas. There is some truth in the fact that the industry could have been best sustained if the number of licensed companies had been lower than it is today.

Some respondents also mentioned that the presence of the multinational companies were a threat to the industry. A 55-year-old acting Managing Director of one of the companies said

"Ghanaian companies are losing control over stevedoring to the private multinational companies and, because the

multinationals have the huge capital, they drown the local ones in terms of latest equipment, expertise and technical know how".

As was previously discussed, the Consortium is made up of very big and successful names in the shipping industry such as A. P. Moeller Maersk and SDV. Currently, A. P. Moeller Maersk is the largest container shipping company in the world and therefore is viewed as a stronger contender to the local companies in the industry. SDV is a global logistics company with its head office in France. Within Ghana, the company brands itself as the market leader in logistics, handling specialised cargo such as cotton, cocoa and rice. Its main activities include clearing and forwarding and is also involved in projects and logistics. SDV has a container freight station and dedicated container terminal, an export stuffing yard in Tema and is also involved in through bill of lading to Burkina Faso, Niger and Mali. Its activities further include bonded and open warehousing and collateral management and it also acts as a shipping agency. As a company that has an International Standards Organisation (ISO) 9001 quality accreditation, SDV offers direct weekly service between Tema and Europe, Far East and Indian Ocean/South Africa/Dubai with good transit times. SDV also operates a dedicated container yard in Kumasi which caters for timber exports and other non-traditional cargo. These are internationally acclaimed experts in the shipping industry and it is therefore not quite surprising that the local stevedoring companies feel intimidated by their participation in a field that has been traditionally theirs.

General workers in the stevedoring industry were much more optimistic about the future prospects of the industry than their directors. Sixty-

five per cent were of the opinion that the industry had a future, four per cent were not sure while 31 per cent agreed with their top officials that the stevedoring industry as it stands today can not be said to be the business of the future. The bleak future observers cited similar reasons to those of their directors and added another factor which is its dependence on political decisions. They felt that the industry will not survive if the government does not intervene and incorporate the local companies in the Consortium.

### **Sea Never Dries**

A 60-year-old General Manager made the following statement to assure the researcher that the stevedoring industry had come to stay:

“Until the sea dries up vessels will never cease coming to Ghana and it will require stevedores to handle cargo or work on the ships”.

The above assertion represents views held by 38 per cent of the general workers who believe the industry will survive. To this group of respondents, it does not matter who is doing the handling of cargo. What matters to them is that stevedoring is a global occupation that has come to stay and will survive in Ghana. It will therefore remain so until the sea goes dry.

Some also believe that the stevedoring industry is currently undergoing a period of difficult challenges in order to adapt to modern trends in the transport and logistics sector and that these problems will eventually work themselves out. Such people have therefore adopted a wait and see attitude as they wait in hope that the industry will rejuvenate itself. Others believe that the industry can be modified by the major players in the marine industry,



especially the port authorities. One of the respondents summarised his idea as follows:

“Stevedoring involves loading and discharging cargo at the sea interface. It could be modified to cater for national interest (invisible earnings) and security part of maritime operations that can not be ceded from general port operations in the short run”

On the issue of the Consortium, some anticipate a brighter future for this partnership to the industry. They believe that GPHA has embarked on a potentially viable and successful project with the Consortium. This is because the participation of the multinationals such as A. P. Moeller Maersk in such a venture will help the international financial institutions view the project in a more positive way and also make future expansion easier since there will be ready support from such financial institutions. Mention can also be made of technology transfer from these acclaimed maritime kingpins to their Ghanaian counterparts. However this transfer will not reach the local companies since they are outside the Consortium.

To others, the non-containerised cargo can sustain the companies in the industry if they are willing to cut back on their expenditures especially on labour. A 52-year-old Operations Manager explained cargo traffic at the port and advised his colleagues as follows:

“Cargo traffic at the Tema port is divided under these headings; containers, vehicles, dry bulk and general cargo (bagged cargo and steel products). When the consortium

takes over about 80 percent of cargoes which is made of containers, the other cargoes will be left for the stevedoring companies. The stevedoring companies must reduce their overheads (operating cost) drastically to remain in business.”

### **VIEWS FROM THE CONSORTIUM**

An official from one of the key players in the Consortium, Maersk Ghana Limited, when asked about the company's view on the assertion that the Consortium was to take over stevedoring from the local companies responded that “the consortium will only handle a percentage of the cargo traffic”. When he was further asked if the stevedoring industry as it stands today had any future prospects, the official did not give a direct answer but pointed to his initial answer “the consortium will only handle a percentage of the cargo traffic”. He however failed to mention the exact percentage of cargo to be handled by the stevedoring companies. Inferring from the statement made by this official, Maersk and its partners, though it is not clearly stated, believe that the stevedoring industry under local investors still has a future even with only 20-30 percent total cargo throughput to handle.

Currently the company (Maersk Ghana Limited), which started its operations in Ghana in 1957, has a total workforce of 272. Their main area of specialisation is in shipping and intermodal activities. The company is also involved in a host of transport and logistics related activities such as freight forwarding, warehousing and the latest addition, container terminal operations and management. As an intermodal company with direct ownership of inland

facilities, the company assesses its ability to invest, disinvest or relocate production across spatial barriers as easy.

Asked for the reasons for its partnership with the other companies to manage container terminal operations, an official of the company listed three main reasons ranking them as very important to the company's decision to involve itself in the Consortium. These are:

- i. Guarantee quick turn around time;
- ii. Opportunity to get involved in land based activities; and
- iii. As a measure of addressing congestion at the port.

The reasons given by the official confirms Lawrence' (1998) assertion that due to the increasing fixed costs that arise from the deployment of larger vessels, as well as the development of hub and feeder systems, global shipping alliances are increasingly participating in container terminal operations. This is to guarantee quick turnaround of their expensive larger vessels as well as instant berth availability so that smooth mainline-feeder connections can be maintained. The trend is also towards the involvement in land based activities with the aim of controlling inter-modal interfaces to vertically integrate transport logistics so as to offer a door-to-door service to customers.

Human resource capacity is very important especially in the stevedoring business even with its swift move from being labour intensive to a capital intensive venture. When asked if the consortium had the requisite human resource capacity to undertake stevedoring activities at the Tema port, the official responded in the affirmative and added that the capacity can be expanded but failed to state how it planned to do so.

When the Maersk official was asked how best the Tema port could be turned into a hub while protecting the interest of the local industries especially the stevedoring sector, his response was "storage areas of the port need to be expanded with dedicated areas for IMO cargo, transit and transshipment cargoes as well as export cargo". On the local industries he said:

"Stevedores must be licensed only on acquisition of basic stevedoring equipment such as minimum number of reach stackers, spreaders, fork lifters and all other stevedoring gear".

It is clear that this official was concerned about the capacity of the stevedoring companies to compete with the Consortium.

#### **INVESTMENT IN CONTAINER TERMINAL AND TRANSPORT DEVELOPMENT**

Ghana aspires to become a hub port in the sub region and is therefore investing in infrastructural developments to enhance its (port's) image. However, people believe it must not sacrifice the interest of its local industry in order to achieve its aim. On the whole, intervention of external agents in local development must be seen to foster local development not subvert it. Local institutions gain experience from the partnership so formed and eventually assume an increasing number and diversity of development functions. Local resources and their utilisation help to identify points of intervention in the development process. When these are mobilised and properly managed, their productivity is more enhanced.

**CHAPTER SEVEN**  
**SUMMARY, OBSERVATIONS, RECOMMENDATIONS AND**  
**CONCLUSION**

**SUMMARY**

The desire to create a more competitive market based transport system has led to the involvement of the private sector in infrastructure investments. One such investment in the port industry is in container terminals. Investment in sea transport infrastructure is regarded as a major incentive for economic development and this has resulted in some countries taking a more pro-active approach to sea transport planning with investment preceding rather than following demand.

The container revolution is seen as one of the most significant technological innovations in the transport sector enabling intermodality and door to door delivery of goods and services. In Ghana, container traffic has increased tremendously over the past five years creating the need for a dedicated terminal to ensure smooth operations at the port and to accommodate the growing traffic which has inadvertently created congestion in the port.

Ghana has responded to this need by constructing a dedicated container terminal, with Berths 1 and 2 extended to provide 570 metres of quay capable of handling two 250 metre long ships simultaneously. The new container terminal, which is located at the western end of Tema port, has three ship-to-

shore gantry cranes and is to be managed by a consortium of shipping lines and the Ghana Ports and Harbours Authority (GPHA). A section of the general public and the stevedoring companies expect that the new management team, which will also handle container traffic at the port, will assume container handling which hitherto was a preserve of the local stevedoring companies. This study was conducted to assess the effects of the takeover on the stevedoring companies in Ghana.

Chapter one of the study constituted the background to the research conducted; it traced the container technology and outlined the importance of this innovation in the transport sector. A container offers a direct facility between the major points of origin and is able to take maximum advantage of each mode according to the geography of the journey and has therefore made intermodal transport possible. It has also to a large extent improved the turn around time of vessels as vessels calling at the port unload and load containers and sail within a day or two depending on the number of containers to be handled.

The chapter further traced the involvement of the private sector in stevedoring in Ghana beginning with the first private stevedoring company to be licensed in 1970 to the much later licensing of others which ultimately brought their number to nine. The changing phase of stevedoring in Ghana with special emphasis on the redefinition of the trade to include shore handling services was discussed.

The chapter also revealed the need for a dedicated container terminal considering the growing container traffic the world over. In Ghana this has led the government through the GPHA to make huge investments in the

construction of a dedicated container terminal. It was further observed that the appointment of the Ghana Port Services Consortium (GPSC) to own and manage the container terminal under a 20 year build operate and transfer scheme (BOT) scheme will immensely affect the local stevedoring industry.

Chapter two reviewed literature related to the study. The review covered areas such as containerisation and the stevedoring industry, investment in containers, and the consequences of containerisation in a globalised world. Also covered in this chapter are theoretical and conceptual issues including the transport-development relationship and Banister and Berechman's Condition for Economic Development model.

To achieve the stated objectives, information was collected from 100 junior stevedore workers, 10 Directors and Operation Managers, 4 officials of the GPHA, an official of Maersk Ghana Limited and 10 additional stevedore workers forming a focus group and one executive of the local labour union of Ghana Dock Labour Company (GDLC). The data were analysed using both descriptive and qualitative statistics with cross tabulations to show the relationships between core variables.

## **OBSERVATIONS**

The study led to the following observations:

### **Concerns on transparency**

A lot of media attention was focussed on the non-transparent nature of the award of operation rights to the Consortium. Much of the displeasure was registered by the Ghana Association of Stevedoring Companies (GASCO) who asserted that they were at no point in time invited to participate in the bidding

process neither were they furnished with any documents demonstrating that due process and regulations with regards to competitive bidding had been followed. GASCO further saw the appointment of any entity under a Build Operate and Transfer (BOT) arrangement, especially to manage a facility which has been built with public resources on the excuse that there is no local expertise, as questionable. To them, none of the explanations given by the GPHA can justify the giving away of the container terminal which forms a core aspect of Ghana's strategic national asset to any entity without competitive bidding.

Cameron (2004:25) reports that the originally large and unwieldy consortium that won the container concession in the two ports of Ghana (Tema and Takoradi) has to some extent consolidated. According to him, the grouping now consists of A. P. Moeller Terminals, Bouygues Travaux Publics and SDV Ghana Limited (Bollere Group) and yet the GPHA still maintains a 30 percent share.

Data collected from the survey confirmed the concerns above. Even officials of the GPHA had very little information on the project. Some said the whole process of bidding was shrouded in secrecy and controversy as people who are going to be directly affected by the takeover have been excluded from the decision making process. The majority of interviewees were therefore concerned with transparency in the Tema port developments.

### **Security implications**

Nkrumah (2005) mentioned that in spite of all the benefits to be derived from the partnership, it poses serious security implications for the



country. This is because the ports' relevance as strategic military area is being compromised through privatisation. And that compromising national security is a threat to all. It looks Dangerous for Maersk and SDV to bring in a vessel, stevedore the vessel at its own terminals, send it to its own storage facilities, do its own custom clearance and transport it to its final destination. Indeed, port authorities ought to broaden their role as facilitators to include taking initiatives, co-operating and consulting. These three factors should underlie proactive port governance. The port authority can certainly be a catalyst even when its direct impact on cargo is limited. Terminal operations are very important to every nation especially developing economies such as Ghana because it involves security implications which may undermine the peace of the nation. It is therefore unwise to totally leave container terminal operations to a private operator.

#### **Tackling congestion at the port**

Congestion at the Tema port is gradually becoming an all year round phenomenon and to a large extent increased containerisation of cargoes has been partially blamed for the tie ups. Response from some of the officials interviewed attested to this. The respondents blamed this on custom procedures subscribed to at the port which require that every single container be opened and unstuffed for inspection after which it is stuffed again. While the terminal was mentioned by 51 per cent of the respondents as a remedy to the problem of congestion at the Port, some felt its provision might not solve the problem if the custom procedures are not changed to reflect modern trends in the industry. It is a puzzle that custom officials go through this strenuous

activity when they have been provided with scanners which can be used for viewing the contents of containers without necessarily stuffing and unstuffing each container at the expense of the shipping companies.

### **Fate of the labour force**

The stevedoring industry employs over 4,000 workers at the Tema port who currently have their fate hanging in a balance. From the research, it emerged that 87 per cent of the workers anticipated job losses as a result of the Consortium's proposed handling of all containerised cargo at berth one and two. The category of workers who will be mostly affected is expected to be the mostly unskilled casual workers from Ghana Dock Labour Company (GDLC). Some of the reasons given for this include:

- i. The stevedoring companies' inability to meet overhead cost as they will now handle 30 per cent of the total cargo traffic of the port.
- ii. Plans by some of the companies to fold up when the situation gets worst.

On the other hand, retrenched workers can be employed even though in times of privatisation, successful bidders usually gain the subcontract on the basis of cutting labour costs because employees are not covered by collective agreements. The Consortium has so far requested 500 hundred workers from the GPHA to start with and the hope of the workers is that through their efficient management of the terminal they will attract more vessels to the port especially cargo bound for the land locked countries such as Mali, Burkina Faso and Niger. It is assumed by a section of the respondents that efficient management will lead to the creation of jobs since more people will be needed

to give support services such as moving cargo to terminals outside the ports and to the devaning yards and the resultant growth in trucking.

### **Container handling equipment and the fate of local stevedoring companies**

Huge capital investments have been made by the nine local stevedoring companies in container handling equipment such as reach stackers and spreaders. This has left many indebted to some banking institutions. In the advent of a takeover of 70 per cent of their cargo handling operations it will be difficult for them to pay back these loans. On the future of the container handling equipment, 80 per cent of the top executives said it will lie idle if not hired by the Consortium. The Consortium, however, has at their disposal three gantry cranes, nine 45 Tonne and thirteen 40 Tonne-reach stackers and other cargo handling equipments inherited from the GPHA. The gantry crane can handle up to 24 containers in an hour of which none of the container handling equipment of the local stevedoring companies can match. This makes it very difficult to envisage the hiring of equipment from the local companies by the GPSC.

In the face of this argument, will the local stevedoring companies' be able to continue the loading and discharging of cargo at the Tema port in the face of changing technologies? According to an Armadillo Marine consultant report in 2005, competition among ports has become very keen as some ports have increased their draft to about 21 metres deep. The thrust of the issue is not only about deepening channels to accommodate larger container borne vessels but also higher productivity levels and therefore bigger cranes that

have a reach of more than 25 Twenty Equivalent units (TEUs) across and other improved handling equipment besides having modern information and communication systems. At present a productivity level of around 75- 100 TEUs per hour is required to keep a 6000 TEU vessel on schedule. The leading ports are gearing up to increase productivity levels to 200 moves per hour to turn around an 8000 TEU vessel in less than 24 hours (Armadillo Marine Consultants, 2005).

From the above observation, it is clear that the equipment being used by the local stevedoring companies though good enough, can not meet the global challenge at increasing productivity at the water front.

## RECOMMENDATIONS

The private sector is broadening the geographical scale of its activities. As a result many of the stevedoring companies and forwarders have understood that inland terminals can strengthen their position in the market (Pederson, 2001). Stevedore companies must therefore look at other business opportunities such as the building and operation of terminals outside the port and even inland distribution of consignments in order to save their companies from imminent collapse. Some of the companies such as Atlantic Ports Services (APS) have already expanded their operations to include trucking, warehousing and container freight station activities and this is seen as a giant step towards the salvaging of their companies from imminent fold ups when they lose about 70 percent of their stevedoring activity to the Consortium.

It was noted in this study that even though the GPHA had plans of building the dedicated container terminal and handing over its operations to a

select few, the authorities went ahead and awarded licenses to seven other stevedoring companies who in turn invested huge sums of money into their businesses. In future endeavours, it is recommended that the GPHA must not license so many companies when it has future plans of reducing the number of investors in any sector it supervises.

From the study it has been realised that though privatisation as a global practise has been used especially in the transport sector as a major avenue for raising private sector resources for public use, local initiatives and concerns are overlooked in the interest of global kingpins who have the ready funds to construct such public infrastructure as a means of expanding their trade and authority over hitherto locations considered as barriers. This can be detrimental to the developments objectives which most governments set out to achieve. This is not to suggest that allowing such global leaders in business to invest in national assets should be completely wiped off. Rather in considering it as a major financing option among many others, its relative attractiveness to public must be duly addressed.

The issue of who is to participate in privatisation is very important. Mostly there is the tendency of keeping participant entities fairly small as parties are not keen to allow their competitors to participate (Fernandez et al. 1999). It is recommended that entry should be made open through a bidding process under fair terms. However, it should be made clear that only a few can be accepted in such partnerships. It is also important that entities that lose out must be duly compensated. In order not to discourage local initiatives, local investors must be given prior considerations alongside global giants in such

partnerships since their association with the big global companies will enhance skill development through technology transfers.

The nine private stevedore companies have made huge investments in container handling equipment through loans acquired from various banks. Most of these loans are still being repaid by these companies with their accompanying interest even though these equipment cannot be used in handling general cargoes. In order to assist the companies to pay off these debts, it is recommended that the Consortium should as a matter of urgency purchase equipment from the local stevedoring companies or hire them when the need arises in order to prevent the equipment from becoming idle while their owners bear the cost of repayment of the debt.

The study has showed that there may be a large increase in unemployment in the stevedoring industry when the Consortium takes over the operations of the container terminal. It is recommended that the government put in structures to absorb the retrenched workers especially the over four thousand casual workers of the Ghana Dock Labour Company most of whom are not skilled and are likely to be most affected.

## CONCLUSION

The privatisation wave that runs over the world is transforming the management of transportation systems. Many transport and logistic facilities hitherto constructed, financed and managed by centralised bodies of the public sector have been currently taken over by private entities. The Tema port container terminal is an excellent example of this process. The current privatisation policy is aimed at improving efficiency, attracting private finance

for the installation of new equipment and new management methods and providing more capacity for transferring cargo.

Substantial public funds have gone into the construction of the dedicated container terminal at the Tema port. Adequate equipment such as ship to shore gantry cranes and reach stackers have also been provided to ensure smooth operations at the terminal.

In spite of potential benefits, the results of this study indicated that stevedore workers were not in favour of the mainly foreign participation in the Consortium stating reasons such as security concerns, evidence of success in Ghanaian run business and revenue generation concerns. A lot of concerns were also expressed by the workers about the possibility of job cuts and under-utilisation of equipment by the stevedoring companies leading to possible collapse of some of them.

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APPENDIX 1

QUESTIONNAIRE FOR DIRECTORS AND MANAGERS OF STEVEDORING COMPANIES

A. Background characteristics

- (1) Age [ ] [ ]
  - (2) Sex M [ ] F [ ]
  - (3) Marital status
    - a. Never married [ ]
    - b. Married [ ]
    - c. Separated [ ]
    - d. Divorced [ ]
    - e. Widowed [ ]
  - (4) i. Highest Level of education attained
    - a. Never been to school [ ]
    - b. Primary school [ ]
    - c. J.S.S/Elementary School [ ]
    - d. SSS/Secondary School [ ]
    - e. Vocational/Technical [ ]
    - f. Tertiary (university, polytechnic, TTC, NTC) [ ]
    - g. Other (specify) [ ]
  - ii. Number of years in education .....
- (5) Position held in company  
.....
- (6) Number of years in current employment.....

B. Structural changes at the port

- (7) How long has your company been operating in the Tema port as a stevedoring company? ..... years.
- (8) a. What changes have taken place in the stevedoring industry in Ghana within the last decade?.....  
.....  
.....  
.....
- b. What changes have taken place in your company within the last decade?  
.....  
.....
- (9) What changes has the rise in containerised cargo effected in the stevedoring industry in Ghana?.....



b. Why.....

(13) What led to the failure of the bidding system?

(14) What is the relationship between your company and the shipping lines?

- i. The company is owned by a shipping line [ ]
  - ii. The company is contracted to load and offload cargo on behalf of the shipping lines
  - iii. Other
- (specify).....

(15) What is the relationship between your company and the GPHA?

- i. the company is owned by the GPHA [ ]
  - ii. The company is contracted to load and offload cargo on behalf of the GPHA
  - iii. Other
- (specify).....

(16) What are some of the challenges you face in the stevedoring industry.

- i.....
- ii.....
- iii.....
- iv.....

**C. Job losses in stevedoring industry**

(17) Rank the following in terms of the positive impact of containerisation on labour activities (1=EXCELLENT, 2=GOOD, 3=FAIR, 4=POOR, 5=VERY POOR)

| Impact  | Rank |
|---|------|
| i. Increased market power of labour   |      |
| ii. Generated high capital-labour ratios  |      |
| iii. Promoted extensive worker discretionary control over firm capital            |      |
| iv. Resulted in high impact of workers performance on firms aggregate performance |      |
| vi. led to institutions confirming workers right                                  |      |

(18) What is the company's total labour force.....

(19) Could you tell me roughly about what percentage of your labour force is casual? .....

(20) Why do you employ casual labour?

- i. Profit [ ]
- ii. easier to control [ ]

- iii. Other
- iv. (specify).....

(21) How long is a person supposed to be employed in a casual capacity in your company?

- i. less than 6months [ ]
- ii. 6months- 1 year [ ]
- iii. 2-3 years [ ]
- iv. More than 3years [ ]

(22) Do you have instances where workers in your company choose to be casual?

- i. yes
- ii. No

b. why.....

(23) Do you foresee job loses as a result of the consortium take over of most container operations?

- i. Yes [ ]
- ii. No [ ]

b. Why.....

(24) If yes to Q23, which category of the labour force will be most hit in terms of job loses?

- i. regular [ ]
- ii. Casual [ ]

b. why.....

**D. Continuous container handling capacity of stevedoring companies**

(25)What is your company's total capital investment in the stevedoring business?

(26)What types of containers does your company handle

- i. none [ ]
- ii. 20ft [ ]
- iii. 40ft [ ]
- v. All [ ]
- vi. Other (specify).....

(26) List the major equipments for stevedoring operations used by your company for t handling of cargo at the Tema port?

| Equipment | quantity |
|-----------|----------|
|           |          |
|           |          |
|           |          |
|           |          |
|           |          |
|           |          |
|           |          |

(28) Which of the above mentioned is exclusively used for container handling?

- i. ....
- ii. ....
- iii. ....
- iv. ....

(29) Which equipments does your company own?

- i. ....
- ii. ....
- iii. ....
- iv. ....

(30) What will happen to these equipments when the consortium takes over the handling most of the containerised cargo at the Tema Port?

.....

.....

.....

.....

.....

(31) Does your company have the requisite capacity to continue stevedoring in the face of current technological advancement in the container industry?

- i. yes [ ]
- ii. No [ ]

Why.....

.....

.....

.....

(32) What percentage of the total non containerised cargo does your company handle at the Tema port? .....

(33) Will this be enough to keep the company in business?

- i. Yes [ ]
- ii. No [ ]

b. why

.....

.....

(34) Assess your company's ability to invest/ disinvest or relocate production across spatial barriers?

- i. very easy [ ]
- ii. Easy [ ]
- iii. Difficult [ ]
- iv. Impossible [ ]

(35) What are you doing as a company to ensure continued existence in the stevedoring industry?

.....  
.....  
.....

**E. Views on the Consortium**

(36) Does Ghana need a new container terminal?

i. Yes [ ] ii. No [ ]

b.

Why.....  
.....

(37) Is Ghana ready to manage a new container terminal built with such high level of investment?

i. Yes [ ] ii. No [ ]

b.

why.....

(38) What do you see as the benefits of the GPHA's involvement in the consortium?

.....  
.....

(39) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

i. yes [ ] ii. No [ ]

b.

Why.....  
.....

(40) Would your company favour an involvement in the consortium?

i. Yes [ ] ii. No [ ]

b.

Why.....

(41) Will you continue in business undertaking less than 50 boxes concession?

i. Yes [ ] ii. No [ ]

b.

If yes,

how?.....  
.....

c.

If

no

why.....  
.....

(42) Do you anticipate stiffer competition within the stevedoring industry in the face of the take over?

i. Yes [ ] ii. No [ ]

b.

how?

.....  
.....  
.....

(43) What are you doing in collaboration with the other stevedoring companies to ensure your continued existence in the industry?

.....  
.....

(44) Do you agree to the statement that stevedoring as it stands today is not a business of the future?

i. Yes [ ]

ii. No [ ]

b.

why.....  
.....  
.....

APPENDIX 2

QUESTIONNAIRE FOR WORKERS OF STEVEDORING COMPANIES

A. background

- (1) Age [ ] [ ]
- (2) Sex M [ ] F [ ]
- (3) Marital status
  - f. Never married
  - g. Married
  - h. Divorced
  - i. Widowed
  
- (4) Highest Level of education
  - h. Never been to school
  - i. Primary school
  - j. J.S.S/Elementary School
  - k. SSS/Secondary School
  - l. Vocational/Technical
  - m. Tertiary (university, polytechnic, TTC, NTC)
  - n. Other (specify)
- ii. Number of years in education .....
  
- (5) Number of children
  - a. none
  - b. 1-3
  - c. 4-6
  - d. More than 7
  
- (6) Job specification
  - a. Regular [ ]
  - b. Casual [ ]
  
- (7) Number of years in current employment.....
  
- (8) What changes have taken place in the stevedoring industry in Ghana within the last decade?.....  
.....  
.....  
.....  
.....
- b. What changes have taken place in your company within the last decade?  
.....  
.....
  
- (9) What changes has the rise in containerised cargo effected in the stevedoring industry in Ghana?.....
- (10) If yes, what has been the effect of the advent of containerisation on
  - a. labour

.....  
 .....  
 .....  
 .....

b. Equipments

.....  
 .....  
 .....  
 .....

c. Competition among stevedoring companies

.....  
 .....  
 .....  
 .....

d. Port infrastructure

.....  
 .....  
 .....  
 .....

e. Warehousing

.....  
 .....  
 .....  
 .....

(11) Rank the following in terms of the positive impact of containerisation on labour activities (1=EXCELLENT, 2=GOOD, 3=FAIR, 4=POOR, 5=VERY POOR)

| Impact  | Rank |
|---|------|
| i. Increased market power of labour   |      |
| ii Generated high capital-labour ratios   |      |
| iii. Promoted extensive worker discretionary control over firm capital            |      |
| iv. Resulted in high impact of workers performance on firms aggregate performance |      |
| vi. led to institutions confirming workers right                                  |      |

(12) What is the company's total labour force.....

(13) Could you tell me roughly about what percentage of your labour force is casual? .....

(14) Why do you think the company employs casual labour?

- vii. Profit [ ]
- viii. easier to control [ ]
- ix. short term nature of our work [ ]
- x. Other  
(specify).....

(15) If you are casual, how long have you been working in this establishment in your current capacity?

- i. less than 6 months [ ]
- ii. 6 months- 1 year [ ]
- iii. 2-3 years [ ]
- iv. More than 3 years [ ]

b. How long is a person suppose be casual in your company

- i. less than 6 months [ ]
- ii. 6 months- 1 year [ ]
- iii. 2-3 years [ ]
- iv. More than 3 years [ ]

(16) Do you have instances where workers in your company choose to serve in casual capacities?

- i. yes
- ii. No

b. why.....

(17) Do you know of the consortium?

- i. Yes [ ]
  - ii. No [ ]
- b. if yes to Q17, what is it about?.....

(18) Do you foresee job loses as a result of the consortium take over?

- i. Yes [ ]
- ii. No [ ]

b. Why.....

(19) If yes to Q18, which category of the labour force will be most hit in terms of job loses

- i. Regular [ ]
- ii. Casual [ ]

b. why.....



(20) Does Ghana need a new container terminal?

i. Yes [ ]

ii. No [ ]

b.

Why.....

(21) Is Ghana ready to manage a new container terminal built with such high level of investment?

i. Yes [ ]

ii. No [ ]

b.

Why.....

(22) What do you see as the benefits of the GPHA's involvement in the consortium?

.....

(23) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

i. yes [ ]

ii. No [ ]

b.

Why.....

(24) What challenges do you face in your job?

i.....

ii.....

iii.....

iv.....

(25) With the growth in technology coupled with the new sophisticated machinery in the stevedoring companies, can you still fit into the industry?

i. yes [ ]

ii. No [ ]

b.

How.....

(26) Have you had adequate training in the use of the state of the art technology in use in the stevedoring industry?

i. yes [ ]

ii. No [ ]

b. How often do you undergo training in this company?

(27) Do agree to the statement that stevedoring as it stands today is not a business of the future?

i. yes [ ]

ii. No [ ]

b. why.....

- (6) Is your company an intermodal company?
- i. Yes
  - ii. No
  - b. If yes what is your intermodal strategy
    - i. direct ownership of inland facility
    - ii. Strategic alliance with owners of inland transit systems
    - iii. Mixture of ownership and partnership

(7) What recent changes have you noticed in the shipping industry?  
 .....  
 .....  
 .....  
 b. How has these changes helped in the development of the shipping industry  
 .....  
 .....

**The consortium**

- (8) Assess your company's ability to invest/ disinvest or relocate production across spatial barriers?
- i. very easy
  - ii. Easy
  - iii. Difficult
  - iv. Impossible

(9) What is the consortium?  
 b. Why the need for such partnership.....  
 .....  
 .....  
 c. What is the nature of the partnership?  
 .....  
 .....

(10) How effectively can your shipping company collaborate with the other members of the consortium?  
 .....  
 .....

(11) How significant is GPHA's involvement in the consortium?  
 .....  
 .....

(12) Rank the following reasons in their order of importance as reasons why your company wish to involve itself with container terminal operations in Ghana?

(1=unimportant, 2= less important, 3= important, 4= very important)

| Reason   | Rank |
|--|------|
| Guarantee quick turn around time                     |      |
| Opportunity to get involved in land based activities |      |
| Vertical integration of transport logistics          |      |
| Other (specify)                                      |      |

**Sustenance of the container terminal project**

(13) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

i. Yes [ ]

ii. No [ ]

b. Why

.....  
 .....

(14) Does the consortium have the needed human resource capacity to undertake stevedoring activities at the Tema port?

i. Yes [ ]

ii. No [ ]

b. Why

.....  
 .....

(15) What is your view on the perception that the consortium is going to take over stevedoring from the companies?

.....  
 .....

(16) Do you agree to the statement that stevedoring as it stands today is not a business of the future?

i. Yes [ ]

ii. No [ ]

b. why?

.....  
 .....

(17) How best can we turn Tema port into a hub while protecting the interest of local industries such as the stevedoring industries

.....  
 .....

**APPENDIX 4**  
**Questionnaire for non participating shipping companies**

Name of shipping company.....  
Number of years of operation in Ghana  
Area of specification.....  
Total workforce.....  
Total shipment per  
annum.....

**Containerization and the shipping industry**

(1) What has been the effect of the advent of containerisation on your shipping operations?

- v. Increase in turnaround time [ ]
- vi. Aided intermodal activities [ ]
- vii. Other (specify).....

(2) Has containerisation led to intensified intra- regional competition among ports

- i. Yes [ ]
- ii. No [ ]

b. Why.....

.....

(3) Is your shipping company involved in any of the listed activities in Ghana?

- i. Ownership of inland transit system [ ]
- ii. Partnership with inland transit systems [ ]
- viii. Warehousing [ ]
- ix. Other  
(specify).....

(4) Is your company involved in any of these activities listed below in the neighbouring ports of the West African sub region?

- i. stevedoring [ ]
- ii. Freight forwarding [ ]
- iii. Warehousing [ ]
- iv. Container terminal operation/management [ ]
- v. Ownership of inland transit system [ ]
- vi. Partnership with inland transit systems [ ]

(5) If yes to any of the above, rank the following reasons in the order of their importance (1=unimportant, 2= less important, 3= important, 4= very important)

| Reason                     | Rank |
|----------------------------|------|
| Expanding area of control  |      |
| Reducing cost of operation |      |
| Increasing profitability   |      |
| Other (specify)            |      |

(6) Is your company an intermodal company?

i. Yes [ ]

ii. No [ ]

b. If yes what is your intermodal strategy

i. direct ownership of inland facility [ ]

ii. Strategic alliance with owners of inland transit systems [ ]

iii. Mixture of ownership and partnership [ ]

(7) What recent changes have you noticed in the shipping industry?

.....  
 .....  
 .....

b. How has these changes helped in the development of the shipping industry

.....  
 .....

(8) What are some of the challenges you face in the shipping industry.

i.....  
 ii.....  
 iii.....  
 iv.....

**The consortium**

(9) Assess your company's ability to invest/ disinvest or relocate production across spatial barriers?

i. very easy [ ]

ii. Easy [ ]

iii. Difficult [ ]

iv. Impossible [ ]

(9) How effectively can your shipping company collaborate with members of the consortium?

.....  
 .....

(10) How significant is GPHA's involvement in the consortium?

.....  
 .....

(11) Would you join the consortium if given the chance?

i. Yes [ ]

ii. No [ ]

b. if yes to Q11, Rank the following reasons in their order of importance as reasons why your company would wish to involve itself with container terminal operations in Ghana?

(1=unimportant, 2= less important, 3= important, 4= very important)

| Reason   | Rank |
|--|------|
| Guarantee quick turn around time                     |      |
| Opportunity to get involved in land based activities |      |
| Vertical integration of transport and logistics      |      |
| Other (specify)                                      |      |

(12) What are your expectations of the new container terminal management?

.....

(13) Will your company continue operating in the Tema port if it is still not given the chance to join the consortium?

i. yes [ ]

ii. No [ ]

b. why

.....

**Sustenance of the container terminal project**

(14) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

i. Yes [ ]

ii. No [ ]

b. Why

.....

(15) Does the consortium have the needed human resource capacity to undertake stevedoring activities at the Tema port?

i. Yes [ ]

ii. No [ ]

b. Why

.....

(16) What is your view on the perception that the consortium is going to take over stevedoring from the companies?

.....

(17) Do you agree to the statement that stevedoring as it stands today is not a business of the future?

i. Yes [ ]

ii. No [ ]

b. why?

.....

(18) How best can we turn Tema port into a hub while protecting the interest of local industries such as the stevedoring industries.....

**APPENDIX 5**  
**QUESTIONNAIRE FOR LOCAL LABOUR UNIONS AND**  
**STEVEDORING ASSOCIATIONS**

**A. Background characteristics**

Name of Association  
.....

Number of years in operation at the Tema  
Port.....

Position in  
Association.....

Total membership in  
Association.....

(1)Age [ ] [ ]

(2)Sex M [ ] F [ ]

(3)Marital status

j. Never married [ ]

k. Married [ ]

l. Divorced [ ]

m. Widowed [ ]

(4)Highest Level of education

o. Never been to school [ ]

p. Primary school [ ]

q. J.S.S/Elementary School [ ]

r. SSS/Secondary School [ ]

s. Vocational/Technical [ ]

t. Tertiary (university, polytechnic, TTC, NTC) [ ]

u. Other (specify) [ ]

ii. Number of years in education .....

(5)Number of years in current employment

a. less than 1 year [ ]

b. 1-3 years [ ]

c. 4-6 years [ ]

d. 7-9 years [ ]

e. More than 10 years [ ]

**B. Structural changes at the port**

(6) How long has your association being operating at the Tema port? .....

(7)What changes have taken place in the stevedoring industry in Ghana within  
the last  
decade?.....

b. What changes have taken place in your company within the last decade?

.....  
.....  
.....  
(8) What changes has the rise in containerised cargo effected in the stevedoring industry in Ghana?.....

.....  
.....  
(9) If any, what has been the effect of the advent of containerisation on  
a. labour

.....  
.....  
.....  
.....  
b. Equipments

.....  
.....  
.....  
.....  
c. Competition among stevedoring companies

.....  
.....  
.....  
.....  
d. Port infrastructure

.....  
.....  
.....  
.....  
e. Warehousing

.....  
.....  
(10) Has containerisation led to intensified intra- regional competition among ports

i. yes [ ]

ii. No [ ]

b. Why.....

**C. Challenges in the stevedoring industry**

(11) a. Is the current allocation system favourable to member companies?

i. yes [ ]

ii. No [ ]

b. Why.....



.....  
 .....  
 .....  
 c. What led to the failure of the bidding system?  
 .....  
 .....  
 .....

12) What is the relationship between your association and the shipping lines?  
 .....  
 .....

(13) What is the relationship between your association and the GPHA?  
 .....  
 .....

(14) What are some of the challenges you face in the stevedoring industry.  
 i.....  
 ii.....  
 iii.....  
 iv.....

**D. Job loses in stevedoring industry**

(15) Rank the following in terms of the positive impact of containerisation on labour activities (1=EXCELLENT, 2=GOOD, 3=FAIR, 4=POOR, 5=VERY POOR)

| Impact  | Rank |
|---|------|
| i. Increased market power of labour   |      |
| ii. Generated high capital-labour ratios  |      |
| iii. Promoted extensive worker discretionary control over firm capital            |      |
| iv. Resulted in high impact of workers performance on firms aggregate performance |      |
| v. Led to institutions confirming workers right                                   |      |

(16) a. What is the association's total labour force.....  
 b. Could you tell me roughly about what percentage of your labour force is casual? .....

(17) Why do member companies employ casual labour?

- xi. Profit [ ]
- xii. easier to control [ ]
- xiii. Other  
 (specify).....

(18) How long can a worker serve in a casual capacity in member companies?

- i. less than 6 months [ ]
- ii. 6 months- 1 year [ ]
- iii. 2-3 years [ ]

iv. More than 3years [ ]

(19) Do you have instances where workers in your member companies choose to serve in casual capacities?

i. Yes [ ]

ii. No [ ]

b. why.....  
.....  
.....

(20) What is your associations stand on the container terminal management by the consortium?

.....  
.....  
.....

(21)What problems do you anticipate your members will be facing as a result of the takeover of container handling at the Tema Port?

i. ....  
ii. ....

iii. ....

iv. ....  
.....

b. What solutions do you suggest?

i. ....

ii. ....

iii. ....

iv. ....  
.....

(22) Do you foresee job loses as a result of the consortium take over?

i. Yes [ ]

ii. No [ ]

b. Why.....  
.....  
.....

(23) If yes to Q22, which category of the labour force will be most hit in terms of job loses

i. Regular [ ]

ii. Casual [ ]

b. why.....  
.....  
.....

(24) What is your association's perception on trade growth as a result of the new container terminal generating further employment at the port?

.....  
.....

(25) Do you anticipate stiffer competition within the stevedoring industry in the face of the take over?

.....  
.....  
.....  
**E. Continuous container handling capacity**

(26) What is the estimated total capital investment of member companies in the stevedoring business?

.....  
(27) What types of containers do member companies handle?

i. none

ii. 20ft

iii. 40ft

xiv. All

xv. Other

(specify).....

(28) List the major equipments used by member companies for handling cargoes at the Tema port?

| Equipment |
|-----------|
|           |
|           |
|           |
|           |
|           |
|           |
|           |

(29) Which of the above mentioned is exclusively used for container handling?

v. ....

vi. ....

vii. ....

viii. ....

(30) What will happen to these equipments when the consortium takes over the handling most of the containerised cargo at the Tema Port?

.....  
.....  
.....  
(31) Do member companies have the requisite capacity to continue stevedoring in the face of current technological advancement in the container industry?

i. yes

ii. No

b. Why.....

(32) a. What percentage of the total non containerised cargo do member companies handle at the Tema port? .....%

b. What percentage of the total non containerised cargo will member companies be handling after the Consortium takeover .....%

c. Will this be enough to keep the companies in business?

i. Yes [ ]

ii. No [ ]

b.

why

.....  
.....  
.....  
(33) Assess your member companies' ability to invest/ disinvest or relocate production across spatial barriers?

i. very easy [ ]

ii. Easy [ ]

iii. Difficult [ ]

iv. Impossible [ ]

(34) Does the stevedoring companies have the requisite capacity to continue stevedoring in the face of current technological advancement in the container industry?

i. yes [ ]

ii. No [ ]

b.

Why.....

.....  
.....  
.....  
(35) What are you doing as an association to ensure continued existence of the stevedoring industry?

**F. Views on the Consortium**

(36) Does Ghana need a new container terminal?

i. Yes [ ]

ii. No [ ]

b.

Why.....

.....  
.....  
.....  
(37) Is Ghana ready to manage a new container terminal built with such high level of investment?

i. Yes [ ]

ii. No [ ]

b. why.....

.....  
.....  
.....  
(38) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

i. yes [ ]

ii. No [ ]

b. Why.....

.....  
.....  
.....  
(39)What do you see as the benefits of the GPHA's involvement in the consortium?

.....  
.....  
(40) Would the association join the consortium if it is given the chance?

i. Yes [ ]

ii. No [ ]

b. Why.....

(41) Will member companies survive under the less than 50 boxes concession?

- i. Yes [ ] ii. No [ ]

b. If yes, how?

.....

c. If no why.....

.....

(42) Do you anticipate stiffer competition within the stevedoring industry in the face of the take over?

- i. Yes [ ] ii. No [ ]

b. how?

.....

(43) Do you agree to the statement that stevedoring as it stands today is not a business of the future?

- i. Yes [ ] ii. No [ ]

b. why.....

.....

(44) What part of the BOT agreement don't you agree with

.....

(45) What problems do you foresee on the part of the takeover by the consortium on the total running of the container terminal?

i. ....

ii. ....

iii. ....

iv. ....

(46) What do you suggest as solutions to the problems you have listed above?

i. ....

ii. ....

iii

iv.

(47) What are your expectations of the new management team

## APPENDIX 6

### In-depth interview guide for officials of Ghana Ports and Harbours Authority

#### Introduction

1. How long have you been working in this establishment / ministry?
2. Since you started working in this establishment / Ministry, what structural changes have you observed in the Tema Port?
  - b. which of these changes would you attribute to the advent of the container technology?
3. What are types of cargoes are exported and imported through the Port of Tema?

(Probe if they are labour intensive or capital intensive)
4. When did containerisation start in Ghana?
  - b. Before containerisation how was cargo transported in Ghana?
5. What are some of the large scale terminal enhancement programmes undertaken by the management of the Tema port as a result of containerisation?

(Probe to find out if it includes training programmes)
6. Has containerisation led to intensified intra- regional competition among ports  
(Probe for reasons)

#### The consortiums terminal operation

7. What challenges is the GPHA facing currently in the management of the Tema port on behalf of the government of Ghana?
8. Why the need for a new management team?
9. What is the consortium?
  - b. Can the consortium address the current challenges faced by the GPHA?

(Probe for how it is going to do that)
10. Why the need for a container terminal
  - b. what are the equipment the GPHA has acquired on behalf of the government of Ghana to facilitate container handling at the Tema port?
  - c. Is Ghana ready for such huge capital investment in the transport and logistics sector?
11. What are the benefits of the GPHA's involvement in the consortium?
12. How different is the new management going to be from the direct GPHA supervision
  - a. revenue generation
  - b. Allocation system
  - c. cost sharing
  - d. Relations with the stevedoring, freight forwarders, brokers and non participating shipping lines
13. When do you hope to implement this policy?

14. What is your stake on concerns raised by a section of the general public and the stevedoring companies on the following issues?
- Loss of jobs in the stevedoring industry
  - compromising national security
  - Non transparency of the consortium formation
  - boycotting of Tema port by non participating shipping lines
- (Probe for solutions)
15. How can this partnership bring about the expected development needed in Ghana's transport and logistics sector?

#### **Sustenance of the container terminal project**

16. Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?
17. Does the consortium have the needed human resource capacity to undertake stevedoring activities at the Tema port?
18. How best can we turn Tema port into a hub while protecting the interest of local industries such as the stevedoring industries.

#### **Stevedoring in Ghana**

19. What changes have taken place in the stevedoring industry in Ghana within the last decade?
20. What is the role of the stevedoring companies and the non participating shipping lines in the consortium?
- How can you open the consortium up to accommodate the stevedoring companies and the non participating shipping lines? - Possibility of floating shares?
21. Will you continue with the allocation system or a new one will be instituted.
- What led to the failure of the bidding system?
22. Can the handling of the non containerised cargo and the 'less than 50 boxes allocation' to the stevedoring companies keep the stevedoring companies from collapsing?
23. Do you agree to the statement that stevedoring as it stands today is not a business of the future? (Probe for reasons)



## APPENDIX 7

### INTERVIEW GUIDE FOR WORKERS OF STEVEDORING COMPANIES (FOCUS GROUP DISCUSSION)

#### A. INTRODUCTION

- (1) What are the duties of the stevedoring companies at the Tema port?
- (2) What changes have taken place in the stevedoring industry in Ghana within the last decade?  
(Probe for changes that has taken place in their own companies within the last decade)

#### B. EFFECTS OF CONTAINERISATION ON STEVEDORING ACTIVITIES

- (3) What changes has the rise in containerised cargo effected in the stevedoring industry in Ghana?

- a. labour Increased market power of labour
  - i. Generated high capital-labour ratios
  - ii. Promoted extensive worker discretionary control over firm capital
  - iii. Resulted in high impact of workers performance on firms aggregate performance
  - iv. Led to institutions confirming workers right  
(Rank in terms of the positive impart of containerisation on the above mentioned labour activities)
- b. Equipments
- c. Competition among stevedoring companies
- d. Port infrastructure
- e. Warehousing

- (5) What is the company's total labour force?
  - b. Could you tell me roughly about what percentage of your labour force is casual?
    - c. Why do you think the company employs casual labour?
      - xvi. Profit
      - xvii. easier to control
      - xviii. short term nature of our work
      - xix. Other
    - d. How long is a person suppose be casual in your company
    - e. Do you have instances where workers in your company choose to serve in casual capacities?

### **C. THE CONSORTIUM**

(6) Do you know of the consortium?

(Probe for what it is about)

(7) Do you foresee job losses as a result of the consortium take over?

(Probe for reasons)

b. Which category of the labour force will be most hit in terms of job losses

(Probe for reasons)

(8) Does Ghana need a new container terminal? (Probe for reasons)

b. Is Ghana ready to manage a new container terminal built with such high level of investment? (Probe for reasons)

(9) What do you see as the benefits of the GPHA's involvement in the consortium?

(10) Does Ghana have the requisite capacity to takeover the operations of the sophisticated equipments purchased for the handling of containers at the Tema port?

(Probe for reasons)

### **D. CHALLENGES**

(11) What challenges do you face in your job?

(12) With the growth in technology coupled with the new sophisticated machinery in the stevedoring companies, can you still fit into the industry?

(Probe for reasons)

(13) Have you had adequate training in the use of the state of the art technology in use in the stevedoring industry?

b. How often do you undergo training in this company?

(14) Do agree to the statement that stevedoring as it stands today is not a business of the future? (Probe for reasons)

UNIVERSITY OF CAPE COAST  
DEPARTMENT OF GEOGRAPHY AND TOURISM

PRIVATE PARTICIPATION IN THE TEMA PORT CONTAINER  
TERMINAL AND ITS IMPLICATIONS FOR STEVEDORING COMPANIES  
IN GHANA

BY  
REGINA OBILIE-ODEI

Thesis submitted to the Department of Geography and Tourism, Faculty of  
Social Sciences, University of Cape Coast in partial fulfilment of the  
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### Candidate's Declaration

*I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.*

Candidate's Signature: Regina Obilie-Odei Date: 06/06/08

Name: REGINA OBILIE-ODEI

### Supervisors' Declaration

*I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.*

Principal Supervisor's Signature: [Signature] Date: 20/06/08

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Co-Supervisor's Signature: [Signature] Date: 20-06-08

Name: Dr Roy Cole

## ABSTRACT

Containerisation has gradually become a dominant method of moving cargo the world over since its introduction in the 1960s and so has investment in container terminals. Container terminals form a central part of the transport infrastructure and its development leads to the overall development of the port system. The appointment of the Ghana Port Services Consortium (GPSC) to own and manage the container terminal under a 20 year build operate and transfer scheme (BOT) scheme will immensely affect the local stevedoring industry. The stevedoring industry in Ghana in itself has undergone a lot of changes including redefinition of its activities to include some aspects of shore handling.

Some anticipate a brighter future for this partnership to the industry. They believe that GPHA has embarked on a potentially viable and successful project with the Consortium. This is because the participation of the multinationals such as A. P. Moeller Maersk in such a venture will help the international financial institutions view the project in a more positive way and also make future expansion easier since there will be ready support from such financial institutions. Mention can also be made of technology transfer from these acclaimed maritime kingpins to their Ghanaian counterparts. However this transfer will not reach the local companies since they are outside the Consortium. Ghana aspires to become a hub port in the sub region and is therefore investing in infrastructural developments to enhance its (port's) image. However, people believe it must not sacrifice the interest of its local industry in order to achieve its aim.