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The national shipping companies in Eritrea : difficulties and prospects for development through effective management

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THE NATIONAL SHIPPING COMPANIES IN ERITREA:

Difficulties and Prospects for Development through Effective Management.

By

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The State of Eritrea

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Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

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Praise be to GOD the Almighty for his grace and support in the most turbulent times of my life, and pray that we have an everlasting Peace.

Dedication

Dedicated to all the MARTYRS of
Eritrean Freedom and Peace.

Abstract

Title of Dissertation: **The National Shipping Companies in Eritrea: Difficulties and Prospects for Development through Effective Management.**

Degree: **MSc**

The dissertation is a study of the operation of the Eritrean shipping companies, the internal and external environment in which they are operating, and how they can improve their performance by the application of some effective management tools.

A brief description is given on the level of development of the economy and the organisation of the maritime industry. The legislative and regulatory framework and the level of infrastructure facilities available are examined, taking into account that Eritrea is a newly independent state and not a traditional maritime nation.

The need for national shipping companies and the role of the Eritrean Shipping Line (ER.SL) and its performance is assessed with a view to describe the need and the level of development of the shipping companies in Eritrea and their contribution to national growth.

The challenges and problems that would hinder the growth of the shipping companies and thwart the achievement of their objectives are identified and classified into four groups: management and organisation, manpower and training, infrastructure, and institutional challenges. Assessment is made based on the practical problems faced and challenges that might arise in the future with the development of the companies.

Management tools for effectiveness and improvement of performance are identified and their implementation procedure described, taking into account the challenges and problems. Additionally, training and information management without which the techniques of management cannot be successfully implemented are explained and examined in view of the different regulations that govern the shipping sector as an international industry. The role of ship management companies as a potential for acquiring managerial expertise, quality management, and information technology is examined.

A number of recommendations are made concerning the implementation of the techniques of management and the measures to be taken at ministerial level.

KEYWORDS: Management, Effective, Challenge, Training, Information, Skill.

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List of Abbreviations

BIMCO	Baltic International Maritime Conference
BS	British Standard
BV	Bureau Veritas
DMT	Department of Maritime Transport
DPMT	Department of Ports and Marine Transport
EDI	Electronic Data Interchange
EPLF	Eritrean People's Liberation Front
ER.SL	Eritrean Shipping Line
ER.STAS	Eritrean Shipping and Transit Agency Services
ESL	Ethiopian Shipping Line
ETSS	Eritrean Transport Sector Studies
GDP	Gross Domestic Product
GL	Germanische Lloyd
IMO	International Maritime Organisation
ISM	International Safety Management
ISMA	International Ship Management Association
ISO	International Standard Organisation
IT	Information Technology
LC	Letters of Credit
MASSOP	Management Structures of Shipowners and Operators
MIS	Management Information System
MoFA	Ministry of Foreign Affairs
MoTC	Ministry of Transport and Communication
MSC	Mediterranean Shipping Company
NYK	Nippon Yusen Kaisha
PFDJ	People's Front for Democracy and Justice
RO-RO	Roll on - Roll off
SBTC	Sector Board of Transport and Communication

STCW	Standard of Training, Certification and Watch Keeping
SWOT	Strengths, Weaknesses, Opportunity, Threats

CHAPTER ONE

1. INTRODUCTION

Shipping has a direct bearing on a country's economy and development. It is of paramount importance for the developing countries depending on their pattern of international trade. As a derived demand of international trade with high economies of scale and a low cost, shipping is subject to changing economic, trade, technological and environmental conditions. It has become, therefore, essential in shipping management to frequently define and update shipping objectives which have to be dynamic. To establish dynamic objectives call for the adoption of a well designed management system that could enable the management to effectively carry out its role. A shipping company can succeed if and only if it has an effective management system in this age of competition and large number of regulations that control the operation of the industry.

1.1. OBJECTIVES AND STRUCTURE OF THE STUDY

a. Objectives:

- to assess the environment on which the Eritrean shipping companies are operating,
- to provide an overview of the role of the Eritrean shipping companies, in which the Eritrean Shipping Line (ER.SL) is taken as a case, in the overall international sea borne trade of Eritrea,
- to identify and highlight the problems and challenges that the shipping companies are facing and would likely be facing in the near future,
- to present effective management tools that can be implemented in the short and long term for the improvement of their performance, including strategic, quality,

information management and training in the light of the complex shipping business,

- to make proposals on how effective management can be used as a source of improvement.

b. Structure of the Study:

- Chapter 2 describes the general economy and maritime sector of the country in order to provide a background to the economic, political, social and organisational environment in which the Eritrean shipping companies are operating at this stage.
- Chapter 3 provides an overview of the role of the shipping companies, using the Eritrean Shipping Line (ER.SL) as a case, in the international trade of Eritrea where a brief description of the structure, share in the seaborne trade of the country and financial performance are given.
- Chapter 4 identifies the problems and challenges that have accumulated for a long period and have acted as a hindrance to the smooth operation and development of the shipping companies.
- Chapter 5 analyses management techniques and their requirements to serve as a tool for effective management and improvement of the services of the Eritrean shipping companies. This chapter has three basic parts. The first part deals with strategic and quality management as techniques for effective management, the process of their implementation and benefits as related to shipping. The second part deals with the requirements for the successful implementation of these two techniques by identifying the most important elements of their success, information management and training and manpower development. Finally, it highlights how ship management companies can assist in the improvement of managerial capacity of the Eritrean shipping companies through training, information management and quality assurance.
- Chapter 6 presents the conclusions and recommendations for the success of shipping in Eritrea with focus on management and the DMT.

1.2. METHODOLOGY AND DIFFICULTIES

The paper is prepared through library research of literature, lectures, field trip experiences, and a flow of communication with the personnel of the shipping companies, and other authorities in the maritime field in the country.

Collection of data has been the main difficulty that was encountered in the preparation of the paper since most of the companies and organisation related to the shipping industry have not in place a system of information management that would be a basis for detailed analysis. For instance, the contributions of the shipping companies in saving foreign currency, facilitation of international trade and financial cost analysis can not be made due to different methods applied in different years with the transfer of ownership in the companies.

CHAPTER TWO

2. GENERAL DESCRIPTION OF THE MARITIME SECTOR AND SHIPPING INDUSTRY IN ERITREA

2.1. PROFILE OF ERITREA:

2.1.1. Geographical Description:

Eritrea is a new country which gained independence in May 1991. It is strategically located in the north east of Africa, known as the Horn of Africa, with the Red Sea on its east coast, Sudan to the west and north, Ethiopia to the south, and Djibouti at the south-eastern end; at 12^{o}-18^{o}N and 36^{o}-43^{o}E. Eritrea extends for over 125,000 square kms with a coastline of around 1200 kms including over 350 islands. The population of Eritrea is estimated between 3 and 3.5 million, with 450,000 inhabitants in the capital city, Asmara, which lies 2000 feet above the sea level and 115 kms from the port of Massawa and about 1185 kms from the port of Assab.

2.1.2. Economic Development:

In order to highlight the economic development of Eritrea a brief sectoral analysis is presented here below. Economic development in Eritrea is related to its port development. As a result of its strategic location it has been a link between the northern highlands of Ethiopia and the Egyptians, Hellenistic periods, the Saudi Arabian Civilisation which were trading in the Red Sea, Mediterranean and Indian Ocean. The ports serving trade at these historic times were the ports developed around the gulf of Zula and Adulis port, which at present are monumental remnants, and of no use.

Modern development of Eritrea was related to the opening of the Suez-canal, which opened an opportunity for the Europe-East Asia steamship routes. This was the basic advent that led to the Italian colony of Eritrea that gave rise to the establishment of the

two national ports, Assab and Massawa. During this Italian colonial era (1882-1941) Eritrea has been able to achieve a substantial development of the economic system through large-scale urbanisation, modern transport infrastructure mechanised agriculture and light industry. In the following years 1941-1991 Eritrea had been under the British administration for 10 years and subjugated to Ethiopian oppression for the remaining 30 years under the Ethiopian imperial and military rulers during which its human and physical infrastructure was almost completely destroyed due to war and famine.

After the liberation of Eritrea in 1991 the economy was at a state of development where the basic economic infrastructure was destroyed due to the long sustained war, agriculture was at its lowest level, transport infrastructure was at the verge of disruption, and the industry base lost due to the nationalisation of the industries during the Ethiopian invasion. The economic ties with different markets were lost especially in the socialistic years of the Derg era. The economy was completely disrupted and rehabilitation has to start from scratch except for the moral and working ability of its human resources, which has been also to some extent disdained due to the long period of war. Eritrea became dependent on imports even of those goods, which it used to export during the years before the occupation of Ethiopia.

Eritrean economy presently is dominated by agriculture; including crop production, livestock, forestry, traditional fishing etc. It is the main source of income for the vast majority (about 80%) of the population living in the rural areas. Although agriculture is one of the most important sectors, its contribution to the country's gross domestic production (GDP) is estimated at about 9.8 percent in 1997. (World Bank, 1998)

The second largest sector of the Eritrean economy is manufacturing. This sector had been in a very high progressive rate until 1945 and then showed slow but positive development until the nationalisation of the private sector in the 1970's mostly processing agricultural products and construction materials for export. The manufacturing sector started with 42 state-owned large & medium-scale light

industries and 750 privately owned small-scale and handicraft industrial establishments, whose raw materials and spare requirements were 80% dependent on imports in 1992 and has shown rapid growth during the past seven years. In the years between 1992 and 1997 the gross output of the sector grew from 419 million nakfa (58.1 m USD) to 1049 million nakfa (145.7 m USD) led by the private sector. (Mengistu, 1998). The World Bank report 1997 puts the contribution of the manufacturing sector to GDP at 29.5 %. (World Bank, 1998).

The mineral and marine resources sector is expected to make a larger contribution in the future with huge investments being made in its development by local and foreign investors specially in the mining sector. Presently it is very difficult to assess the resources due to the lack of information about the potential although it has been a common knowledge that Eritrea has such minerals as Gold, Copper, Potash, Salt, Zinc, Petroleum, Natural Gas etc. The contribution to the GDP is estimated at 0.1% from the mineral and marine resources. Eventhough the estimated fishery products from the Red Sea goes up to 70,000 tons per annum it is the nation's under-utilised resource whose contribution to the GDP is insignificant at this time. As for other marine resources such as salt there exist two salt factories in the port areas of Assab and Massawa; and more than 500,000 tons of salt can be harvested both for national use and export. (Berhe, 1997)

The services sector contributes about 51% of the GDP of the nation. This includes tourism, trade, transport, energy, and other services. By the virtue of its geo-strategic location, Eritrea commands about 1,200 km of shoreline and over 30,000 km^2 of marine domain in the Red Sea. It is a potential resource both as source of marine resources, as an international commercial route, and as a tourism area with its 350 islands. The coastline represents a direct contact with the most heavily trafficked maritime route (Europe-Middle/Far East), which could be the occasion for rendering services to transit maritime traffic and for establishing Free Zones for export oriented goods, the natural sea access for land-locked Ethiopia and Eastern Sudan, enhancing

the geographical advantages also through efficiency of operations and marketing capabilities.

2.2. MARITIME ADMINISTRATION:

2.2.1. Transport Sector Development:

The transport sector is a prerequisite for economic growth and social development of a country especially in the early and middle stages of development. This sector has important links with all the other sectors of the economy. It includes such infrastructure as road networks, railways, airports, and seaports, which require heavy capital investments. The transport sector in Eritrea lay its foundation during the colonial era of the Italians, which consisted of a network of main and rural roads connecting the major centres of trade and some rural areas, as well as a railway line connecting the port city with the main sources of export of manufactured goods and agricultural products in the lowlands. This infrastructure development was further extended to Ethiopia giving the country a gateway for its export and imports from the port of Assab to the central region, while its northern region was being served from the port of Massawa. In addition to the road and railway system there was also a cable-way system from the capital city, Asmara, to the port city of Massawa, which was dismantled during the British rule. After the defeat of the Italians in the second world war little development was achieved in transport infrastructure in terms of expansion, improvement or enlargement during the British administration and under the Ethiopian annexation. The Ethiopian annexation subjected the sector to deterioration and to the level of destruction, during the war for independence by deliberately bombing the port of Massawa and using the railway construction materials to build trenches. At the time of independence the infrastructure was almost on the verge of total devastation, although it has to play a crucial role in the efforts to enhance the flow of goods and services to develop export oriented economy with accelerated growth in the industrial sector.

The state of Eritrea generally faced an economy which was totally war devastated and it was in light of this situation the “macro-policy document” was produced by the end

of 1994. Its basic outlines were the rehabilitation of the different economic sectors and the establishment of appropriate policies that would lead to sustained economic growth. The policy towards the transport sector included the development of the Massawa port as a regional port, while developing and maintaining the growth of the Assab and other coastal areas; development of roads for domestic and regional services in stages; rehabilitation of the railway system, and develop domestic air service that would lead to making Eritrea a hub for regional services. In addition to the above sectoral policy there is the overall policy of building an institutional capacity that would enhance the implementation of the programme.

In order to accompany the policy framework developed for the economy the state of Eritrea has been restructuring its public administration until it was finalised in 1997 after the ratification of the Eritrean constitution. The final organisation structure clearly specified that the responsibility for all policy matters in regard to the transport activities lies under the Ministry of Transport and Communications (MoTC) and accordingly, the maritime affairs are conducted by the Department of Maritime Transport (DMT) within the Ministry.

2.2.2. Organisational Structure of the Maritime Administration:

Eritrea inherited an obsolete and weak maritime administrative institution from the Ethiopian administration. The problem was the result of the centrally planned economy of Ethiopia which gave no autonomy to the provincial administration in the development of policy and decision making and the departure of the Ethiopians who once monopolised the available manpower in the sector. Therefore, higher priority was placed on developing own capacity to manage policies, and the administration was organised as the Department of Marine Transport Authority in 1991 with the responsibility to formulate policies, to draft regulations, and to administer operational activities of the maritime affairs, ports, shipping agents, shipping lines and other maritime related organisations. In 1993 it changed its name to Ports Authority and was placed under the president's office with similar responsibilities including the administration of the national shipping line.

The existing structure was established as the Department of Maritime Transport (DMT) under the Ministry of Transport and Communication (***figure 1***). The DMT has regulatory, advisory and promotional responsibilities, in addition, to the administration of the maritime affairs at national level. It has four divisions subdivided into units with duties limited to the formulation of policies, regulation, standardisation and safety of navigation. The ports, shipping agents and other maritime related organisation were given full autonomy as a first step towards privatisation and their operational responsibility lies on the Sector Board of Transport and Communication (SBTC), which was established in parallel with the DMT. The DMT maintains supervisory responsibilities for the management of shipping and maritime affairs, guides and co-ordinates the development issues in long-term investment and plans. (ETSS, 1998)

2.2.3. Legislation and Regulation:

Regarding maritime legislation, Eritrea has adopted the Ethiopian maritime code of 1960 with small amendments, but this code has not been adequately developed to incorporate the changes in international and national maritime transport. Due to the relatively short period of independence, national legislation has not yet been fully developed and the 1960 code is not fully consolidated to include pollution prevention, abandonment of ships, ship's agents and ports, entry into territorial sea and other maritime laws. Therefore, a revision to reflect the unique features of the nation and to incorporate the latest international conventions and national objectives became a necessity. The maritime administration, with the assistance of the IMO technical co-operation division and the Ministry of Justice, is participating in the preparation of a new maritime code draft (Tekle, 1996). In the meantime, with regard to the ship registration and for the ports and maritime transport sector some rules and regulations are provided such as:

- Proclamation No. 77, 1995 - A Proclamation to Regulate the Registration of Eritrean Ships enacted as a provisional law amending the maritime code of 1960, states that vessels owned by Eritrean nationals only can be registered; and

gives the responsibility of registering and conducting flag state control to the DMT. (GOE, 1995)

- Rules and Regulations of the Eritrean Sea-Ports, 1992 dealing with arrival and departure of vessels, pilotage, documentation, ship berthing, traffic control, accidents and damage, hazardous cargo handling, responsibilities etc. and the description of the port boundaries in detail. (ETSS, 1998)

2.2.4. IMO Conventions:

As of May 1995 Eritrea has become party to the IMO 48, LOADLINE 66, TONNAGE 69, COLREG 72, SOLAS 74 and STCW 78 IMO conventions (IMO, 1999) and in order to discharge its obligations under these conventions it has taken measures to develop flag and port state controls and coastal state duties (Tekeste, 1997).

2.3. INFRASTRUCTURE:

Institutions that are incorporated within the maritime industry of Eritrea are the ports, ship repair services, ship agency and freight forwarding services, and shipping companies, which play an important role in the economic development of the country. The present situation of these organisations is briefly stated below.

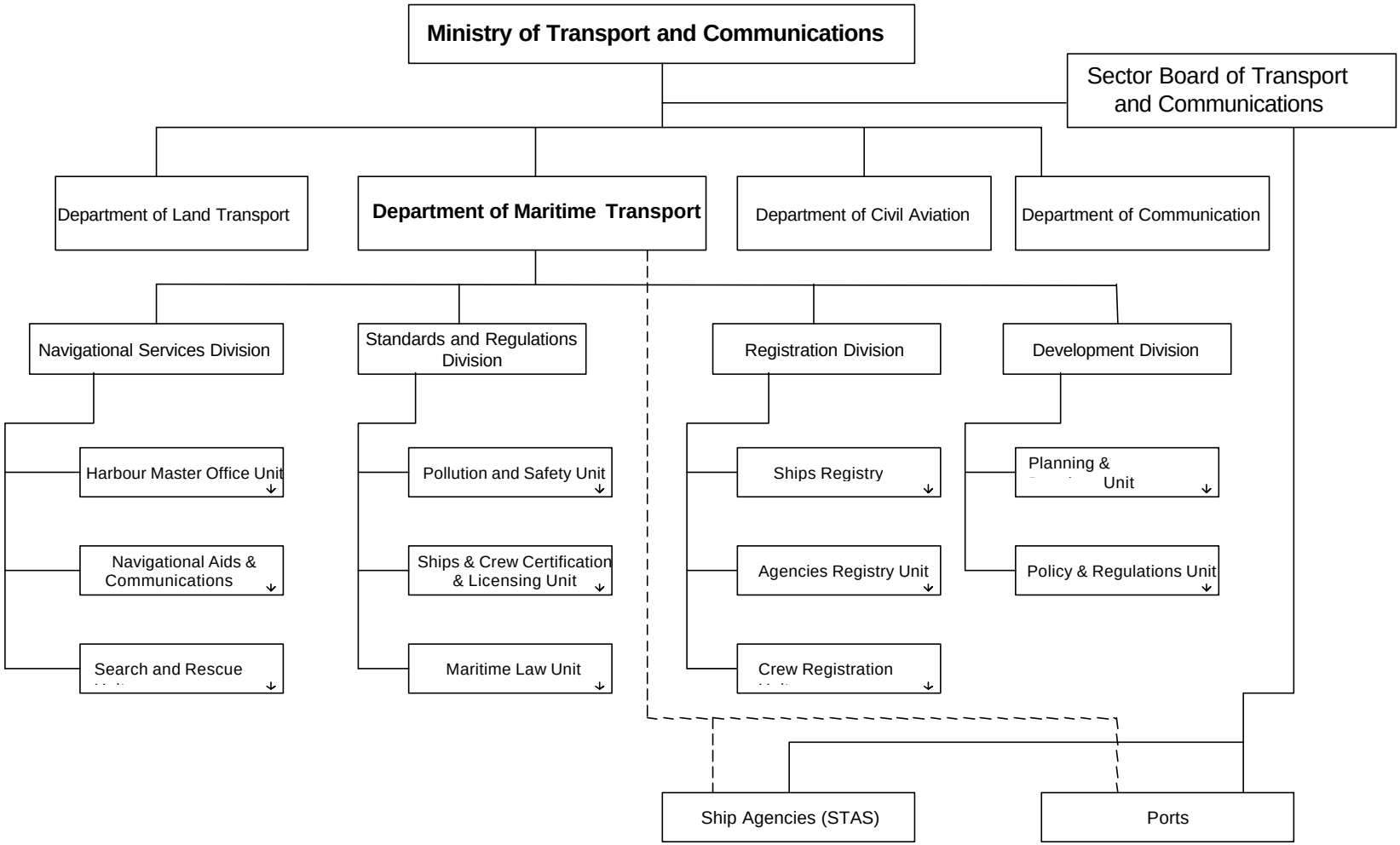
2.3.1. Ports Development:

The two major national ports of Eritrea are the Massawa and Assab ports

a. Massawa Port:

The port of Massawa is the main national port for Eritrean international trade since it is located only 115 kms away from the capital city and is connected by main and rural roads to the highlands of Eritrea were most of the agricultural as well as industrial production sectors are located.

Figure 1 - Structure of Maritime Administration of Eritrea



The port of Massawa was one of the most highly suffered infrastructures during the war for independence. Almost 90% of its facilities were destroyed due to neglect and bombing. Until the recent programme for rehabilitation of the port, which introduced some modern equipment with the assistance of the World Bank and other donors, the port has suffered severe shortage of equipment required for any port to handle its operations effectively and provide an efficient service. (DMT, 1998*b*).

The port facilities available are limited to the handling of general cargo, live stock, bagged, and bulk cargo. Although container handling services are provided, with an average of 5664 TEU's per annum from 1991-1997, the port is not yet equipped with specialised container terminals handling container ships. The port has 6 general purpose berths with an overall length of 907 meters and 4 specialised berths (2 oil terminals, 1 cement jetty and 1 salt jetty) to provide its ship and cargo handling services. As can be seen from ***table 1*** the number of ships handled and the cargo throughput is increasing from year to year. All the stevedoring, shore handling, tallying and warehousing services are provided by the port administration, which has been given autonomy in its operational management. (DMT, 1998*b*)

b. Assab Port:

The port of Assab is located on the southern part of the Red Sea, 1185 kms away from Asmara. It was constructed as a modern port in 1964. Due to its geopolitical and economic interest the Ethiopian administration has made huge investments in the development of the port as compared to the port of Massawa. The port serves as the main entryway for most of the Ethiopian inland cargo. Out of the total cargo handled in the port around 95% is transit cargo to/from Ethiopia. (DMT, 1998*b*)

The port facilities available are limited to the handling of general cargo, live stock, bagged, and bulk cargo. Eventhough there are no specialised container terminals, with the ever increasing containerisation of the cargo transport there is a speedy increase in the container movement of the port, from a low of 1788 TEU's in 1991 to 34,756

TEU's in 1997 with an average annual TEU of 19,558. The port has 7 general purpose berths with an overall length of 1025 meters and 4 specialised berths (3 oil terminals and 1 salt loading terminal) to provide its ship and cargo handling services. As can be seen from ***table 1*** the number of ships handled and the cargo throughput is increasing from year to year. Similar to the port of Massawa all the stevedoring, shore handling, tallying and warehousing services is provided by the Assab port administration, which has been given autonomy in its operational management. (DMT, 1997*b*)

Table 1 - Massawa and Assab Port Traffic 1991 - 1997

	Massawa Port				**Assab Port**			
Year	No. of Ships	Cargo Throughput ('000 tons)			No. of Ships	Cargo Throughput ('000 tons)		
		Incoming	Outgoing	Total		Incoming	Outgoing	Total
1991	104	431	1	432	150	669	68	737
1992	228	560	11	571	380	2075	353	2428
1993	285	385	10	395	454	1919	372	2291
1994	385	759	21	780	548	2310	505	2815
1995	415	674	29	703	600	2443	485	2928
1996	445	784	29	813	676	2421	562	2983
1997	422	889	76	965	628	1836	476	2312

Source: DMT, Massawa Port, Assab Port, ER.STAS.

2.3.2. Shipping Agency and Freight Forwarding Services:

These services are provided by Eritrean Shipping and Transit Agency Services (ER.STAS), a direct successor of the Ethiopian Maritime transit services corporation which had had a monopoly on both the freight forwarding and shipping agency service until 1991. In 1992 the freight forwarding was deregulated and there are large numbers of small companies providing the service of customs clearance and cargo forwarding services, while ER.STAS remains the sole agent for all ships calling the ports of Assab and Massawa.

Generally, the scope of the freight forwarders, including ER.STAS, is limited to local services provision with no international presence. The clearing and forwarding companies are required to have a very minimal initial capital, an office, telephone and a fax machine to start up. In addition the owner or one of his employees must have a

certificate of competent transitor. This certificate is provided after passing the transitors exam on clearance and customs services set-up by the Ministry of Finance. ER.STAS has its main offices in Assab and Asmara and a branch office in Massawa under the Asmara office. Any services to a vessel can be provided only after a confirmation is received that an irrevocable transfer or payment is made in foreign currency into the accounts of the organisation.

2.3.3. Ship Repair Services:

This enterprise is located in Massawa, giving dry-docking services and is striving to recover from its low level of utilisation. It gives service to small ships, which are less than 3000 tons dwt and has only 38 employees (DMT, 1997*b*). It is not in a position to maintain reasonable standards in its practices, and ships, even the national fleets, are taken to other neighbouring dry dock services for major repair and maintenance services.

2.3.4. Shipping Companies:

A large number of shipping lines call the ports of Massawa and Assab. Among them are the two national shipping companies Eritrean Shipping Line (ER.SL) and Fenkel Oriental Marine Services (Fenkel).

a. Eritrean Shipping Line (ER.SL):

The ER.SL is owned and operated by the People's Front for Democracy and Justice (PFDJ). It owns three dry cargo vessels, one roro vessel and one tanker. The company started its operations in 1982 during the struggle for independence under the Eritrean People's Liberation Front. The trade route of the vessels is within the Red Sea area, the Persian Gulf and the Indian Ocean. The ports of call include Massawa and Assab in Eritrea, Djibouti, Port Sudan, Sharjah, Aden, Jeddah, Mombassa, Dar es Salam and Durban. The company intends to expand its services into Southern Europe in the near future. (ER.SL, 1998)

A detailed analysis of the company's' performance, contribution to the promotion of international trade in the country, identification of the problems and prospective

challenges that the company might face and some major steps that should be taken in order to improve the operational activities of the company in the competitive business of international shipping will be dealt with in the following chapters.

b. Fenkel Oriental Marine Services:

This company is a privately owned company with two tanker vessels named "Fenkel I" - Flag Honduras - DWT of 2100 and "Fenkel II"- Flag Belize - DWT of 2440. They operate in cabotage of petroleum products from the refinery at Assab to the depots of the oil companies in Massawa. Eventhough the company has been active in the provision of services in transporting petroleum products as early as 1992, its services remained limited to local operations and it has made no major expansion. The vessels of the company have made a total number of 215 calls between the years 1992- 1997 and the estimated refined petroleum products transported are about 201,000 tons (ERSTAS, 1998). Due to the fact that the refinery in Assab is under over-hauling, the company has lost its market in the coastal trade which led it to dry-dock and lay up the vessels from operation.

The main activities of the company are agency, communication and forwarding services. In the agency service it functions as a protective agent to shipping companies calling the ports of Massawa and Assab, as it is not able to provide shipping agency services, which is the sole responsibility of ER.STAS. The company's contribution to the international trade in Eritrea is very limited as it is involved in the cabotage service.

CHAPTER THREE

3. ORGANISATION OF ERITREAN SHIPPING COMPANIES - THE ERITREAN SHIPPING LINE (ER.SL)

3.1. NEED FOR NATIONAL SHIPPING DEVELOPMENT

The objective of national economic growth in most developing countries, has been to raise the standard of living of their population by stimulating the rate of growth of their economy through industrialisation and diversification. To achieve this objective a country needs a functioning and well organised transport system, basically maritime transport, which has the unique characteristic in terms of its cheapness when compared to other modes of transportation and is easier and far more practicable to carry any type of imports and exports, no matter the weight and distance to be covered. The service can be undertaken by the country itself or by other international service providers. However, it is believed that developing countries should be able to participate in the carriage of their foreign trade, which to a large extent involved sea transport (UNCTAD, 1981). Therefore, the existence of national fleets is believed to play an important role in efficiently enhancing their international trade through low cost and an efficient transport system, implying that having a national fleet is not an end in itself, but a means to economic growth, since development without international trade is unthinkable. In view of the above fact, many reasons can be advocated for the need to operate a national shipping line in a country, especially in the early stages of development.

- Prevention of disruptions of shipping services during hostilities,
- Prestige and national ego,
- Reduction of economic dependence,
- Economic integration,

- Promotion of exports,
- Diversification and employment,
- Improvement of the balance of payments.

a. Prevention of disruptions of shipping services during hostilities

The availability of national shipping fleets is very important in times of hostilities. In any case of war or other risky situations the ships, which are not national, would leave the service and create a shortage of transport requirements in the national economy leading to chaos. This has been observed in the disruption of the Ethiopian Shipping Line (ESL) serving the Eritrean ports after the conflict between Eritrea and Ethiopia in 1998. The ESL issued a circular to divert all their ships and cargo to the port of Djibouti and not to call any Eritrean port and to discharge all cargo in the port of Djibouti, including the cargo that was destined to Eritrea (MoFA, 1998). Similarly, many shipping lines have been reluctant to operate in the Red Sea area due to the prevailing situation. However, the national fleet has successfully helped fill the gap that was created and has transported the cargo destined to Eritrea from the port of Djibouti.

b. National Ego / Prestige

Political reasons, that is, the idea of prestige for the states and its nationals. There is pride in every national of a country before the national flag representing the country's technical capacity in the face of the whole world. The objective is to project the good image of Eritrea nationally and internationally by flying the nation's flag on the high seas and in the seaports of the world.

c. Reduction of economic dependence

The economic dependence implied by complete reliance on foreign shipping is a source of difficulty for countries which do not have their own national fleet. The dominance of foreign shipping enterprises in the seaborne trade makes it difficult to control and exert influences on the freight levels and services. Developing countries consider it a need for any country to be independent from foreign carriers, which could, for any reason, suspend their activities or terminate them. Thus a foreign

carrier, which can achieve better performance elsewhere on another line will surely stop servicing a certain country, which turns out to be less profitable to trade with. The service provided by foreign ships is dependent on the demand of the shipowners, not on the developing countries' demand (Yeats, 1981, p3).

d. Promotion of exports through low cost shipping services

It is generally argued that high freight rates are charged for the services provided by foreign ships, and they are felt as a major hindrance to international trade. This renders the national production not competitive in international markets, thereby reducing the volume of exports. On the import side it makes the manufactured goods so expensive that the local consumers simply cannot afford buying them. Therefore, there arises a requirement for the provision of national shipping fleet services at lower costs in order to promote exports and transport imports at a relatively reasonable price that would enhance economic development.

e. Economic integration

It is commonly understood that foreign ships are not highly interested in the national market of developing countries, that is, cabotage services of shipping. This is due to low traffic flow, involvement of small scale shipping, and dependency on local administrative regulations. Therefore, the existence of national fleets is the only way out to create economic integration for a country, which has a low level of infrastructure development and no efficient means of transport connecting the coastline. The incidence on the Ethio-Eritrea conflict has significantly shown the importance of the shipping line for integration of the economy, providing services and supplies to the localities in the coastlines. Before this incidence the supplies to the ports of Assab where from Ethiopia but after the eruption of the conflicting trade policy and the establishment of Letters of Credit (L.C.) for import and export the supply to these localities was drained and the supply of commodities has to be transported from the domestic markets of Eritrea, which are linked to the coastal areas by marine transport at low cost and efficiently. The best choice for the transport of

these commodities were the national ships, which were available to perform the operation with dedication and reliability.

f. Diversification and employment

Maritime transport, to be effected efficiently, requires the availability of various services directly or indirectly related, such as shipping services, port development, and ship repair and maintenance. Shipping transport, which is considered to be capital intensive, together with ship repair and port services, which are highly labour intensive, would create a huge demand for labour, reducing the high unemployment level. In addition to this, the need for trained manpower will force the opening of training institutions in maritime and technical fields, thereby increasing the employment opportunities. The contribution of the ER.SL in employment opportunities is increasing annually and will continue to increase as the company is expanding its operations. During the last seven years of life of the company the number of employees has risen by 120% (ER.SL-PPO, 1999). In addition to this the line has opened the road for the transfer of shipping know-how to nationals, which was reflected on employment of seamen. For instance when the m/v "Yohana" was bought it was operated by foreign crews except for the captain and chief officer, but now only two of the total 12 crew are foreigners.

The maritime sector has both forward and backward linkages in the economy putting pressure of demand in many economic activities such as banking, insurance, legal practices, communications, etc. If the ship repair and maintenance enterprise continues to grow, demand will be created for steel manufacturing factories, electrical equipment manufacturers, etc. That would be beneficial for such countries as Eritrea, which have a very low level of diversification.

g. Improvement of the balance of payments effect

An efficient shipping service minimises the net outflow of foreign exchange, hence, has a positive impact on the balance of payments. National fleets could become foreign exchange earners and foreign exchange savers at the same time, by transporting cargo to and from foreign countries (Georgandoplous,1984). The savings include the freight

charges paid by national exporters and importers to foreign ships for transporting imports and exports to and from national ports, and such payments for chartering foreign ships. On the other hand, the earnings may include chartering of the national ships, participating in cross-trade services etc. There is no actual data to analyse the level of effect on the balance of payment of the operation of the ER.SL in saving and earning foreign exchange. It can, however, be easily advocated that the company has been able to provide services within the coastal areas, specially transporting cargo between Assab and Massawa, which would have been performed by chartering foreign ships in foreign currency, thereby saving the charter amounts that would have been paid out of the national money reserves. Additionally, the company has been involved in transporting Eritrean imports and exports to the Middle East and Arabian Gulf, which has enabled the country to gain some foreign currency earnings.

3.2. ERITREAN SHIPPING LINE - ER.SL

3.2.1. History

ER.SL was officially established, in October 1992 under the Ports and Maritime Transport Authority. The company was transferred to private ownership in 1994 under the People's Front for Democracy and Justice (PFDJ) and now it is wholly owned by the PFDJ, however, it has a full managerial, operational and financial autonomy with the following objectives:

- To raise profit and to help the economy through its hard currency earnings.
- To promote the country's foreign trade by carrying its exports to foreign ports.
- To encourage local exporters and importers by offering them attractive freight rates payable either in foreign or local currency.
- To train its nationals at a merchant marine academy and employ them as trained seamen, thereby contributing to the creation of employment in this sector.
- Promote the country's maritime activity.

Although it was officially established in 1992, the company begun its operation in the early years of the 1980's owning the m/v "Angelos", a vessel of a 710 tons DWT during the struggle for independence by the Eritrean People's Liberation Front (EPLF). It later increased its fleet to two by purchasing the m/v "Salam" in 1990, a vessel of

2910 tons DWT, which played a significant role in the logistical support of the final years of the 30 year old armed struggle. (ER.SL, 1998)

After the full liberation of Eritrea in 1991 the company acquired its third vessel, a tanker, m/t "Beilul", 3160 tons DWT. This has enhanced its activities in providing the service of transporting the oil products from the refinery located in the port of Assab to Massawa.

The company was under the ports authority until the beginning of 1994 before its ownership was transferred to the PFDJ which saw the expansion of the company by purchasing in 1996 the vessel m/v "Yohana", a roro ship with DWT of 2570 tons and 319 containers of 20'. The total number of vessels has been raised to five (5) by the end of 1998 with the purchase of a multipurpose ship, the m/v "Denden", DWT 8626 tons. All the vessels of the company were sailing under the flags of open registry countries until the proclamation to regulate the registration of Eritrean ships was enacted in 1995 when all the ships changed their flags to Eritrean flag and are now subject to the rules and regulations of the Eritrean ship registry.

Table 2 - ER.SL Vessels as at 1998

Vessel	Type	Year built	Purchase date	Class	DWT tonnage	Registry/Flag
Angelos	General Cargo	1970	1982	Hellenic	715	Massawa/Eritrean
Salam	multipurpose	1978	1990	Hellenic	2,910	Massawa/Eritrean
Beilul	Tanker	1979	1992	GL	3,160	Assab/Eritrean
Yohana	Roro/lolo	1979	1996	GL	2,570	Massawa/Eritrean
Denden	Multipurpose	1977	1998	BV	8,626	Assab/Eritrean
Total					**17,981**	

Source: ER.SL Planning and Programming office

3.2.2. Organisational Structure

ER.SL is involved in different fields of sea transport operations including general and break bulk cargo, liquid bulk, container and refrigerated cargo transport. As can be observed the company owns and operates three types of ships bulk, roro-container, and tanker. Therefore, the company can not be categorised as a liner or tramp ship operator. It adjusts its operations according to the demand of transport services of the country, although it provided a liner service between the ports in the Arabian gulf and

Eritrean ports of Massawa and Assab as well as the port of Djibouti for cargo destined for Eritrea.

The management function of the company is carried out by the General Manager who has to report to the department of economic affairs of the PFDJ, transport and communication section that is responsible for the overall performance of the company and is involved in major decision making processes as stated in its operational activities. The daily activities and other operational decisions are taken by the General Manager supported by the heads of the various departments.

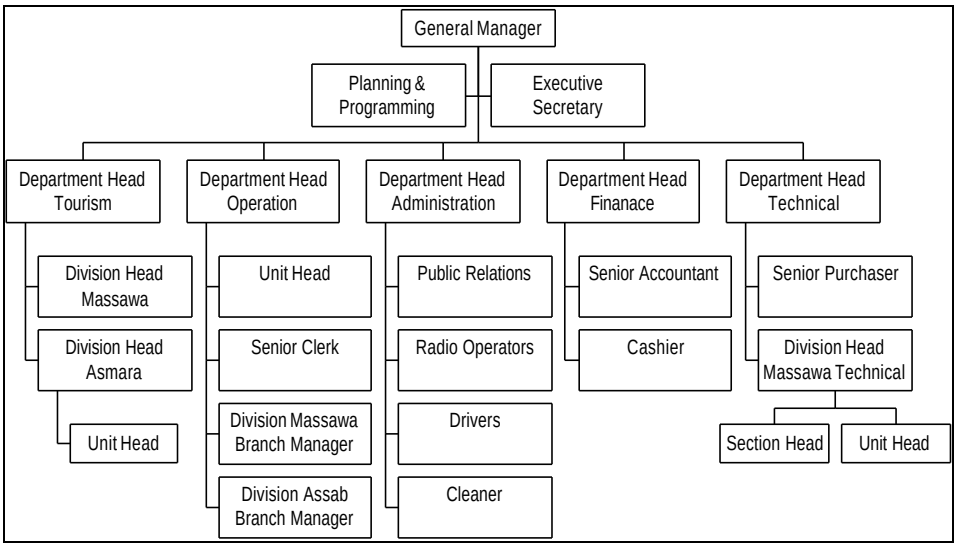
The company is structured based on functions into five departments with two area branches in order to achieve the objectives for which it is established. In addition to the departments the company has also a subsidiary workshop in Massawa providing technical repair services support to the operation of the ships and performing other repair services for the general public. The management of the company is conducted from the Head office in Asmara including all the financial, technical, operational, administrative and other related matters, except for the day-to-day follow up activities within the local operational areas of the ships, which are conducted from the two branch offices in the ports ***(figure 2)***. The company also has agents in all its operational areas, which are responsible for the cargo canvassing, preparations for the ship operational matters, and other formalities in order to facilitate their performance in foreign ports. These agents have to report at a specified interval to the operations department about their activities in accordance with the agreements.

- **Operations department:-** is responsible for the day to day operation of ships and carries out the task of planning & scheduling ship movements, canvassing cargo, liasing with agents etc. It is charged with the responsibility of initiating and implementing the company's operational and commercial policies, including traffic and vessel programming. It also supervises the activities of ER.SL agencies.
- **Technical department:-** is responsible for carrying out all tasks required to make vessels seaworthy and up to their class requirements. These tasks include fulfilling

material and technical requirements of ships, dry docking, vessel documentation, class renewals, etc.

- **Finance department:-** this department is responsible for all financial and monetary matters of the company, for collecting and effectively utilising the funds necessary for the efficient operation of company. It is charged with the responsibility of implementing the company's financial and accounting policies.

Figure 2 - Structure of the Eritrean Shipping Lines



Source: Eritrean Shipping Line

- **Administration department:-** is responsible for the day to day administration of the company's main office and branches, the recruitment of staff, both sea going and shoreside staff. Planning and preparing the training requirement of all the crew and shore staff in co-ordination with the various department heads in order to acquire higher level of education and preparing the company to meet the respective international standards. The company has 174 employees out of which 92 are seamen and 82 are shore staff. Out of the total number of 92 seamen only 18 are foreign nationals 2 of them working on m/v "Yohana" and 16 on m/v "Denden". (ER.SL-PPO, 1999)

- **Tourism department:-** this department was previously organised as a subsidiary company, but is now responsible for managing and operating the company's tourism operations in Massawa and Dahlak.

3.3. ROLE OF THE ER.SL AND ITS PERFORMANCE

3.3.1. Seaborne trade in Eritrea

Shipping is vital to world trade; as is generally accepted about 95% of the world trade is transported in whole or in part by sea (Farthing, 1997, p.12). Seaborne trade has been the prime method of carrying commodities, especially bulk commodities over long distances. It is essentially safe, cheap and the most cost-effective means of transport. Shipping of all industries, is the most international and has been indispensable to economic progress. It therefore has to be seen, not from the narrow national or indeed nationalistic viewpoint, but against the broad sweep of global developments, particularly in the trade sector. For many nations and geographical regions, ocean shipping has always represented a major means of transportation as compared to land and air transport. In 1995 the international cargo throughput in the two ports -Massawa and Assab - was 702,000 and 2.47m tons respectively (DMT, *1997b*), while the air cargo traffic for the same year was only 2800 tons (ETSS, 1998, p.C/186). This reflects the fact that the sea is the main gateway for Eritrean imports and exports as compared to the other modes of transport. The level of international seaborne trade movement in Eritrea has been growing at an average annual rate of 7.1% since 1992, which is, on average, composed of foreign, home and transit trade of 72%, 22%, and 6% respectively in the port of Massawa, while 1%, 6% and 93% respectively in the port of Assab (DMT, 1998*a*). This implies that the ports of Eritrea have the potential, in competition with Djibouti, to serve as hub ports for the Eastern African region, which includes land-locked Ethiopia and the Eastern and southern Sudan. Therefore, there is a good expansion possibility for the national fleet to serve the demand that may arise as a result of the regional operations.

The major origins and destinations of Eritrean imports and exports by sea are the European and Asian markets accounting for 39 and 33% respectively, although

recently the share of exports to the African market, which accounted for around 48% in 1997 has been rising. The cargo composition of imports has been cement, machinery and transport equipment, fertilisers and general cargo with an average annual growth rate of around 27% (DMT, 1998*a*).

3.3.2. Share of ER.SL

The transport demand for the large amount of imports and exports of the country and the transit cargo is satisfied by both national and international shipping companies. These companies are calling the Eritrean ports on liner as well as charter basis on ocean-going vessels. They are composed of 72% bulk, break bulk and general cargo ships and the remaining 28% are RO/RO and container vessels. The Ro/Ro traffic includes some passenger traffic from Jeddah (DMT, 1998*a*). The companies with frequent calls include highly advanced and well organised shipping companies providing global services such as P&O container lines, Maersk line, Linea Messina, Mediterranean Shipping company (MSC) and Pacific International Lines, which are basically involved in the European and Far East markets. In addition to the global service providers there are also small shipping companies specially involved in the Asian, Arabian gulf and Red Sea areas. These are ESL, Baaboud Shipping Company, Sadaka Line, Adulis Marine Cargo and Shipping, HAL International, Al-Mahar Shipping, AL-Dagani and the ER.SL. In the dry and bulk cargo transportation the list is very long since most of the service providers are chartered. However, there are operators which are frequently chartered to serve in the American, Far East and Eastern European markets. These include Waterman Steamship corporation, Colt International, Metalink, COSCO, Nippon Yusen Kaisha (NYK), Jadroplov Split, and others (ER.STAS, 1998). In the home trade the main operators are the ER.SL in both dry and liquid cargo, and Fenkel Oriental marine services in the transportation of refined petroleum.

The number of ship calls in the ports of Massawa and Assab from 1991-1997 has been 2284 and 3436 respectively. Most of the ships calling the ports have a GRT less than 10,000 eventhough most of the cargo was carried by larger ships, specially before

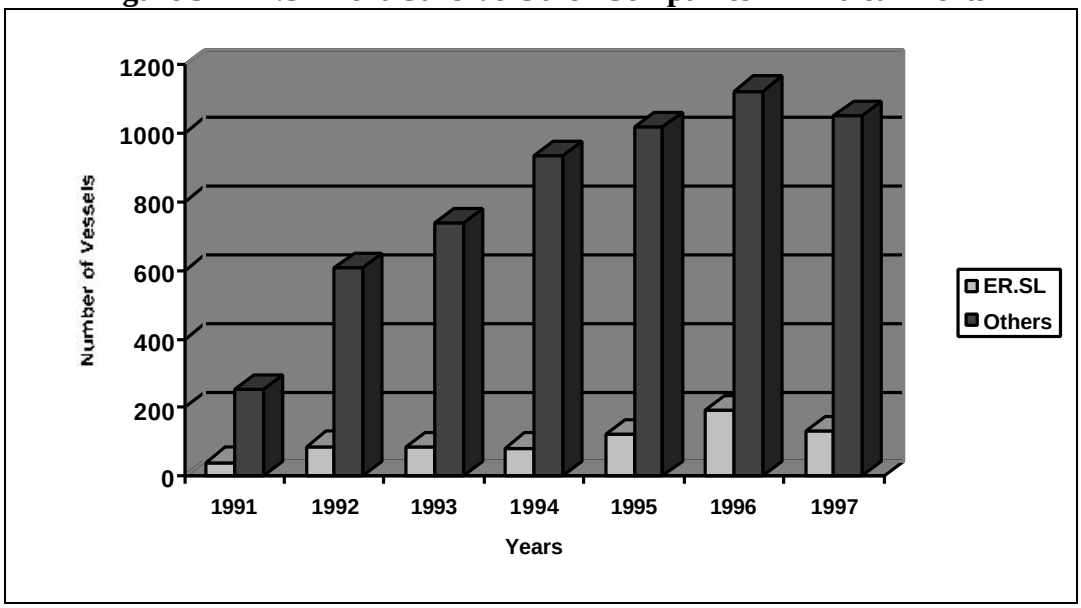
1994 when a large amount of aid cargo was being transported in bulk using lash vessels. (DMT, *1997b)*

Table 3 - ER.SL Vessel calls & Cargo Handled in Massawa and Assab Port 1991-1997

Year	Total Number of Ship Calls	ER.SL ship calls	**ER.SL % Share**	Total Cargo Transported	**ER.SL Cargo Share (in '000 tons)**	**ER.SL % Share**
1991	254	40	**15.7**	1,169.5	32.3	**2.8**
1992	608	87	**14.3**	2,998.3	100.5	**3.4**
1993	739	84	**11.4**	2,685.3	94.8	**3.5**
1994	933	82	**8.8**	3,596.2	97.4	**2.7**
1995	1015	122	**12.0**	3,630.3	85.5	**2.4**
1996	1121	193	**17.2**	3,795.8	174.1	**4.6**
1997	1050	131	**12.5**	3,277.3	166.6	**5.1**
Total	**5720**	**739**	**12.9**	**21,152.7**	**751.1**	**3.6**

Source: compiled from DMT statistical bulletin, ER.STAS and ER.SL reports.

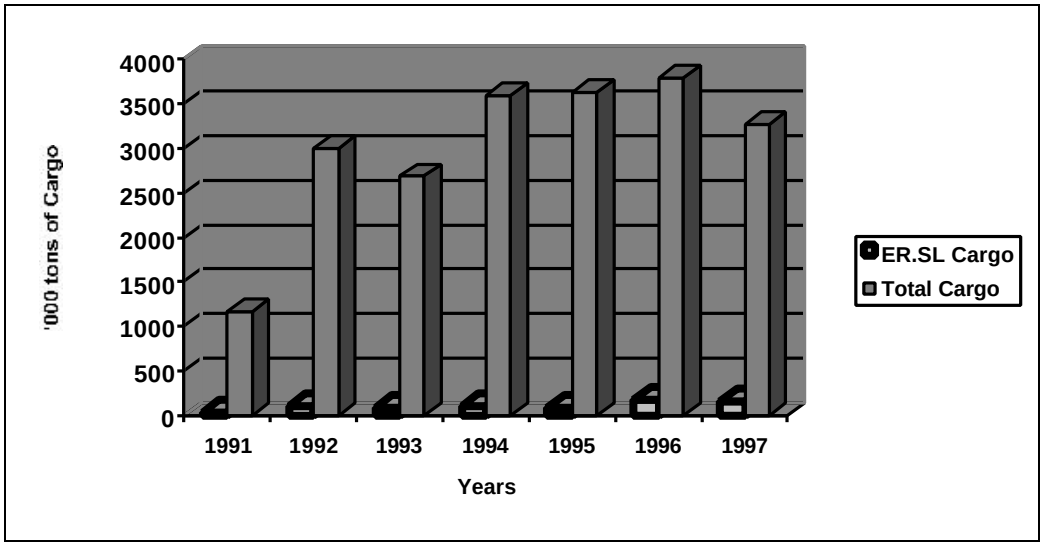
Figure 3 - ER.SL Port Calls Vs Other Companies in Eritrean Ports



Source: table 3

As can be observed from the table and figures the calls by ER.SL have been increasing although at a lower rate than the annual growth of the number of ship calls and cargo transportation. The high rate of increase in 1996 is the result of the addition of a ro/ro-container vessel, which enabled the line to expand its services in the Red Sea and Arabian Gulf area as well as open new routes to the ports in south-eastern Africa, such as the ports of Mombassa in Kenya, and Dar-e-salam in Tanzania.

Figure 4 - ER.SL Cargo Transported Vs Total Cargo in Eritrean Ports



Source: table 3

3.3.3. ER.SL Services:

The company has deployed its vessels in accordance to the cargo demand from the different service areas and the vessel suitability for the cargo to be transported. At present the operational routes of the company are limited to the Red Sea, Arabian Gulf, and South-Eastern Africa area at specific intervals, depending on the cargo availability and on charter basis. The company has also acquired its own containers for use by its customers on rental basis. The majority of cargo transported by ER.SL vessels are construction materials carried in break bulk or in containers; and general cargo. As for export cargo it transports iodised salt, sorghum and various other commodities.

ER.SL has a long term goal of creating an independent and successful shipping company in the region in order to achieve its objectives, while the short term goal is to create and maintain an efficient shipping company and to raise the quality of its service and the productivity of its employees and the company in general. To this effect the company has been operating outside any conference. However, recently the company has entered into joint ship operation from Europe to the Red Sea Area, with a well

established shipping company Ahlers Maritime Services, Antwerp (Belgium). (ER.SL-PPO, 1999).

3.4. FINANCIAL PERFORMANCE OF ER.SL:

3.4.1. Profitability:

For a company that has been operating for a small number of years, the financial performance of ER.SL is at a relatively good level with a limited market share. It can be observed from ***table 4*** and ***figure 5*** that the company's revenue has been growing annually. However, its momentum of growth has been very high with the addition of the roro vessel m/v "Yohana" in 1996. The services of the company have become commendable and it has been able to expand its market from the Red Sea region shifting one of its vessels, m/v "Salam", to operate in the Arabian gulf.

Table 4 - ER.SL Operating Revenue and Expenses 1994 - 1997 (7.25 Nakfa = 1 USD)

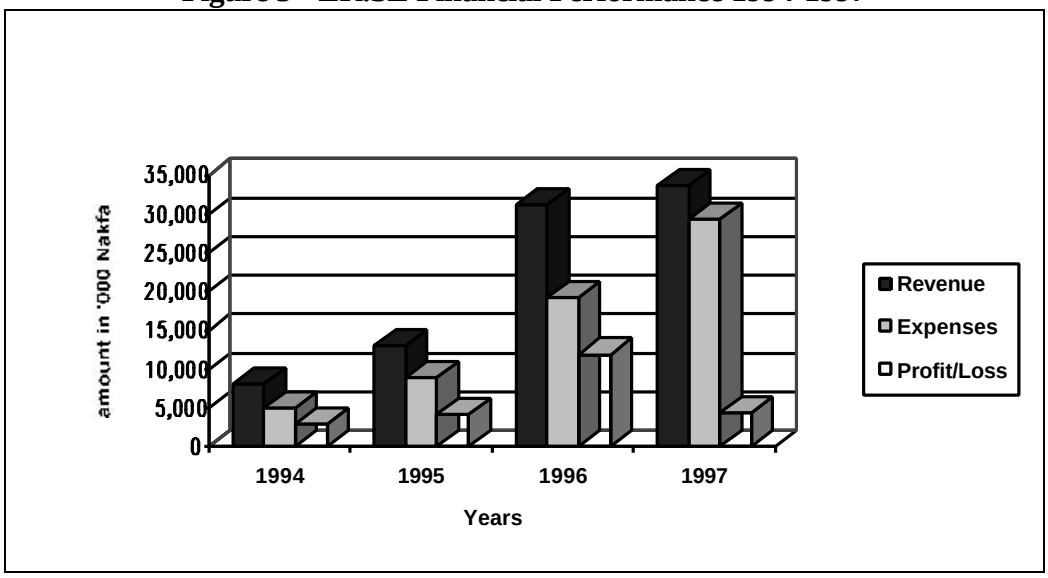
Year	Revenue	Expenses	Profit/Loss	Profit/Loss (USD)
1994	8,053,154	5,051,515	3,001,639	414,019
1995	13,053,924	8,855,685	4,198,239	579,067
1996	31,139,449	19,218,016	11,921,433	1,644,336
1997	33,646,301	29,293,972	4,352,329	600,321

Source: Eritrean Shipping lines

The operating margin or profitability of the company expressed as the percentage of net profit on the revenue for the years 1994-1997 has been greater than 13**%** on the average, which implies that the company has a good level of return on its sales.

The figure also shows that the company has a great potential for growth if it is able to command a reasonable market share, by operating its old second-hand vessels efficiently and/or through expansion of its fleet. However, its financial profits indicate that the company is not in a position to achieve expansion from its own funds. Therefore, it will be dependent on financial sources from outside such as government loans (as it did in the acquisition of the new vessel m/v "Denden" at the end of 1998), commercial bank loans, loans from its parent company, international financial credits etc.

Figure 5 - ER.SL Financial Performance 1994-1997



Source: Eritrean Shipping lines - table 4

3.4.2. Foreign Currency Earnings:

One of the arguments for the establishment of national shipping lines, as advocated by many developing countries, was to earn foreign currency for the nation. However, the assessment of the contributions of the shipping industry to a country's economy is very complex and requires detailed statistical data, which is not readily available and is beyond the scope of this paper. Therefore, to give a glimpse of the situation in the case of the shipping in Eritrea, the share of foreign currency earnings in the total revenue of the company and its growth is shown in ***table 5***.

Table 5 - ER.SL Share of foreign currency collection in total Revenue 1994-1997

Description	1994	1995	1996	1997	Total
Collected in Local currency	5,919,068	8,733,075	14,946,936	14,131,446	**43,730,525**
Collected in US dollars	2,134,086	4,320,849	16,192,513	19,514,855	**42,162,303**
Total revenue	8,053,154	13,053,924	31,139,449	33,646,301	**85,892,828**
Percentage of the USD share	26.5%	33.1%	52.0%	58.0%	**49.0%**

Source: Eritrean Shipping lines

3.4.3. Freight rates:

The freight rates charged by the company are calculated on cost basis for different cargo types. As can be seen in ***table 6*** where the representative freight rates for the

Red Sea region and Arabian Gulf route are given, the company has been able to maintain competitive rates and achieve reasonable profit earnings from its services to mainly local customers.

The table shows that ER.SL is very highly competitive in the transport of shipper owned containers while at the same time offering almost similar prices to the lines which have been operating in the area for a long period of time. This implies that the company has been able to penetrate the market in a good standing. To maintain the market and achieve growth the company needs to develop its services towards customer oriented operations and exploit the dedication of the importers and exporters who are willing to offer their cargo to the national carrier rather than other operators for a minimal difference in the freight rates.

Table 6 - Representative Freight rates of ER.SL and various shipping companies in the Massawa - Assab - Gulf route (in USD)

Cargo Type	Unit	ER.SL		Ethiopian (ESL)		Hal Int'l		Al Dagani		Al Mahar	
Port		MSW	Assab	MSW	Assab	MSW	Assab	MSW	Assab	MSW	Assab
Small cars	1.0	187	240	226	317	188	300	236	268	225	282
Medium cars	1.5	373	600	342	563	375	603	349	536	375	563
Trucks	4.5	747	827	859	1,076	804	831	670	804	858	938
G.Cargo per MT or CBM	1.0	35	35	30.3	35.1	35.1	35.1	40.2	40.2	37.5	40.2
Pallets per MT or CBM	1.0	35	35	30.3	35.1	35.1	35.1	40.2	40.2	40.2	40.2
Shipper's own Container	20"	875	950	1,056	1,106	1,005	1,126	1,005	1.105	1,005	1,099

Source: Eritrean Shipping Line

CHAPTER FOUR

4. CHALLENGES AND PROBLEMS OF THE SHIPPING COMPANIES - ER.SL

4.1. GENERAL BACKGROUND:

In general, there are several factors that influence the organisation, size and structure of a shipping company in a country. These factors include:

- level of economic and technological development, and political and social structure of the country,
- geographical position of the country,
- relative importance of the seaborne foreign trade as compared to the other modes of transport,
- volume and structure of seaborne foreign trade,
- existence of other shipping services, including port activities, ship repair services, ship financing etc,
- availability of trained personnel on the field of maritime and maritime related activities,
- level of awareness of importers and exporters of the international and national regulations involved in international seaborne trade and commerce in general,
- competition from outsiders involved in international and regional services,
- level of international technological development and changes in shipping, etc.

The above list indicates that the success of a shipping company depends on the proper assessment and understanding of several factors and the response that the management of the company takes to the opportunities and/or challenges and problems that they present.

In the previous chapter the arguments in favour of establishing a national shipping line and the performance of ER.SL have been presented. The presentation shows that the company has been in a relatively stable growth. However, this does not imply that the growth of the company has been smooth. There were and still are several problems and challenges that it has been trying to address. In this chapter the challenges and/or problems that the company has been facing and might face in the near future will be assessed.

4.2. MANAGEMENT AND ORGANISATION

4.2.1. Management Strategy

The most important components of a shipping company are the ship and its management. Therefore, the adoption of a recognised system of management, with clearly defined long and short term strategies, is important to provide the necessary assurance to customers, authorities and the public in every sphere of the operational areas of the company. To be successful a shipping company has to be able to plan its future activities based on a management strategy that it develops from a properly conducted analysis of the different factors that influence its operations. ER.SL has not been able to conduct a thorough analysis of its external opportunities and threats and identify its internal strengths and weaknesses in view of its competitors in the market and customers due to the prevailing economic, social and political situations. The challenge of developing a management strategy has been intensified by the lack of planning on the side of local importers and exporters, the main customers of the company. These customers respond to the short term market conditions and have no long term plans, which can be the basis for market research. Hence, the company was forced to respond to the market growth trend, keeping a wide-open eye to the creation of potential clients, and changes in the structure of the imports and exports of the country.

4.2.2. Competition and Market Limitation

Shipping as an international business is highly competitive involving highly organised companies with globalized services and small companies providing regional services.

It is, therefore, natural that a company, like ER.SL, as a new entrant in a specific market has to compete with companies that have certain definite advantages of traditional know-how, a long-established commercial infrastructure, and benefits of economies of scale. However, the level of competition is different for different market areas depending on how well organised the companies operating in that area are and the freight rates that they are charging. ER.SL has been able to penetrate the Red Sea and Gulf market as a national carrier charging competitive freight rates with those companies operating in the area (***see table 6***) although its market share is still very low, 5-7% of the total cargo transported to Eritrean ports. In some areas of its operation the ER.SL has lost some of its big clients to the bigger companies who were able to offer lower freight rates.

Even though the company has limited resources and assets, it has put its focus on serving the Eritrean international trade in the European market in addition to the regional services. However, this market is currently served by such operators as P&O, Maersk, MSC, Linea Messina, PIL etc., which have almost monopolised the trade through their experience, superior ship technology, efficiency and reliability of service and the level of competition would be very high and restrictive. Therefore, ER.SL has to be able to prove its efficiency and reliability, and gain the confidence of importers and exporters to achieve a share of this market, although the initial advantages that these operators have acquired in the market would be expected to increase, rather than diminish, in view of the unrestricted competitive policy of the country. This will be a big challenge to ER.SL since it would require a great deal of managerial expertise, investment and assets, which are beyond the resources of the company as well as the nation as a whole in the near future.

ER.SL, in addition to competition in the market, is also facing market limitation. The transit cargo to Ethiopia, which constitutes around 95% and 10% of the cargo handled in the ports of Assab and Massawa respectively, is strictly controlled and carried by the Ethiopian Shipping Line (ESL), that owns and operates a 13-vessel fleet, when it is

within its operation area. This cargo, is therefore, unavailable to the ER.SL since the two lines call similar ports. In addition to the Ethiopian cargo, the ESL has been effectively involved in the Red Sea and Arabian Gulf market competing with the ER.SL for cargo destined to Eritrea, since there is no restriction or cargo reservation policy entertained by the government of Eritrea to the national carrier.

4.2.3. Trade Imbalance and Cargo Acquisition

Eritrean international trade is characterised by a high imbalance of imports and exports. There has been a huge imbalance in the flow of cargo through the two ports. For instance, the imbalance of dry cargo movement in the port of Massawa, which is the major foreign trade port for Eritrea, in the years 1994-1997 was 2,198,226 tons as can be observed from ***table 7***. The volume of exports from Eritrea are still low and this fact affects the companies operating in the area, since vessels are forced to sail to foreign ports empty and obliges them to increase the freight rates. The imbalance of trade is specially reflected in the Red Sea, Gulf area and European markets.

Table 7 - Dry Cargo movement - Port of Massawa 1994-1997 (in ton)

Year	Discharge cargo	Load cargo	Imbalance
1994	612,567	21,746	590,821
1995	511,223	28,663	482,560
1996	581,357	29,206	552,151
1997	648,392	75,698	572,694
Total	**2,353,539**	**155,313**	**2,198,226**

Source: DMT statistical Bulletins

In addition to the trade imbalance that exists in the international trade, ER.SL is facing the problem of cargo acquisition and marketing. This problem is attributable to the non-existence of a section, which is exclusively devoted to marketing. The marketing and cargo canvassing activities are conducted by the operational department, which is given the responsibility of co-ordinating all the commercial activities of the vessels. However, as was observed by the writer the department is understaffed to conduct such marketing activities and the day-to-day operational matters occupy all the staff assigned. Hence, the department is not able to rely on good market research, sound analysis and forecasting of market developments by interacting with clients. To the

best knowledge of the writer the company is dependent on responding to clients rather than pro-actively developing new markets.

4.2.4. Technological level of Vessels

The factors that may inhibit a national carrier's ability to acquire a larger amount of cargo in the nation's trade are influenced by the size, type and technological level of the ships owned by the company. The shipping companies in Eritrea own small and old second hand vessels and this has limited their operation to coastal and regional trading. The long-haul services to Europe, Asia and other continents require more advanced vessels, which are able to run at higher standards to fulfil the regulatory demands of the developed countries. Therefore, the company is not able to share in the European market, since its vessels lose economies of scale and, if they are to be operated, they have to undertake a major overhaul to satisfy the requirements of European inspections, which result in large sums of repair cost. The implication of the loss of economies of scale and large sums of repair cost, coupled with the huge cargo imbalance, are charging of very high freight rates that would make the ER.SL vessels not competitive.

The company spends around 30 days on regular repair and maintenance work on each vessel each year as a general rule. However, due to the old-age of the ships, frequent maintenance between voyages is required and this has been a cause for not maintaining some scheduled voyages and resulting in the loss of some clients.

In general, obsolescence and the low speed of the vessels, added to the higher freight rates has been a cause for lower demand of the ER.SL vessels in the regional market when compared to the highly efficient vessels operated by the global carriers.

4.3. MANPOWER AND TRAINING

4.3.1. Lack of Skilled Manpower

The management of a company has the responsibility of manning the ships and office in such a way that they would be operated safely and profitably. The basic element in the success of the company is its human resource. The existence of a highly trained crew

on board and highly qualified personnel ashore make a huge difference in the services provided by the company, and safety of the crew, the vessels and the cargo. Eritrea, as a developing and traditionally non-maritime nation, is facing an acute shortage of adequately qualified and experienced local personnel. There is lack of available trained manpower in all maritime fields, including officers, crew, managers, surveyors, engineers, administrators, technicians, etc. This has limited the capacity of ER.SL to employ experienced technical, managerial and operational personnel in its ships and office and has greatly compromised its development.

Although the company introduced employment rules with, specified qualifications that would provide the necessary safety and higher level of service profession in the shipping industry, due to the lack of skilled seamen it is obliged to employ crew with a lower level of training from local personnel. In order to fill the employee requirement of the company from local sources the criteria for employment, depending on the type of assignment, the qualifications required for the job are kept as low as possible taking into account the availability and the situation in the country. In some cases the requirements do not ask for previous sea-going experience.

In addition, the shortage of skilled seamen and officers, with adequate training and certificates, has been a dilemma to the company in the acquisition of vessels. On the one hand, to purchase modern and technologically advanced ships, which have to be operated with highly trained personnel, this highly trained personnel have to be acquired from foreign sources at very high salary levels or by hiring crew from local sources that require expensive training abroad, due to the lack of training facilities locally. On the other hand, purchasing and operating old and second hand vessels with a low level of sophistication require minimal training of personnel from the local sources. The company has opted for the second alternative of purchasing second hand vessels (ER.SL-PPO, 1999).

Unskilled seamen are threats not only to the shipping company but also their threat extends to the nations involved in the business and where the ships of the company

sail. This has necessitated the formulation of an international order and regulation for crew selection. However, the regulations formulated by international agencies in the operation of ships with regard to manning can not be implemented properly when there is lack of training. Therefore, companies might lose their competitive edge for crewing their ships with employees who lack even the rudimentary shipping knowledge, which is a prerequisite for all modern shipping practices. This would be an expected challenge for ER.SL when it starts its operation in the European and Far East markets where there is an intensified port state control and detention of vessels, which do not satisfy the necessary requirements as laid down in the international standards.

4.3.2. Inadequacy of Shipping Expertise and Management skills

The existence of very highly qualified managerial personnel in shipping companies is a very decisive factor for a newly established company or as a new entrant to a specific market. The existence of the company may be limited to a short number of years due to lack of managerial capacity. Okesanjo, writing about the shipping lines in Nigeria, cited that many of the shipping companies have not been able to survive for very long, basically because of the very limited experience of the country in the management and operation of shipping lines. He further elaborated the need for qualified personnel saying that "the companies required very highly qualified managerial capacity in order to be able to face the immovable protective wall of monopoly erected by the long established and experienced foreign shipping lines and cartels in the main trade routes of the country". (Okesanjo, 1994, p.12)

Therefore, having adequate managerial expertise becomes a prerequisite to sustain the operation of a company, particularly one operating with second hand vessels, in the highly organised and competitive shipping market. The qualifications required to meet these demands can only be found within the maritime sector among those who have long years of sea-going experience and have adequate formal academic training, which is lacking in Eritrea in general. Most of the executives of the successful shipping companies, which the writer has visited during field trips, have a very wider

experience in shipping with seagoing experience serving as captains, chief engineers, chief officers, master mariners etc. This provides them with the advantage of critically analysing the managerial decisions, which have to be taken ashore, in the perspective of both their sea going experience and shore management techniques. The ER.SL loses this opportunity due to the lack of shipping expertise in management from the actual fact that it was not able to acquire higher management officials who have a seagoing experience and could be settled in shore based management. There is a chronic shortage of sea-going personnel with good experience and the company has employed personnel ashore who have no sea-going experience, but with considerable operational links to the ships. The lack of shipping management expertise is noticed in the process of chartering, fleet management agreements, purchase of vessels and other legal matters that arise where expatriates have to be hired and legal practices are conducted through pre-contracted services. As this problem is reflected in the Eritrean maritime sector in general it implies that the availability of managers with seagoing experience serving on shore is out of the question in the near future.

4.3.3. Training Institutions

The availability of training institutions locally proves to be important as a source of skilled manpower supply to the companies operating within a country. In meeting the manpower needs of its local shipping industry, Eritrea faces many of the problems experienced by most of the nations who have no training institutions and have to send their personnel for training abroad and incur huge expenses. In addition to the huge expenses that are incurred in training, the company can not fully ensure that those trained personnel would make their services available after completion of their studies, they might choose to work overseas. Therefore, the need for local training institutions is of paramount importance to the economy as well as the national shipping companies. The lack of training facilities locally has made it difficult to obtain manpower with the required qualifications from the local market. To emphasise the problems associated with the lack of training facilities Professor Georgandopolous (1984) pointed out that the availability of well educated and/or trained management personnel and seagoing personnel is of crucial importance for a shipping company.

Unless this exist domestically the company has to secure them from abroad, which will be a great disadvantage both to the company and the nation as a whole, since it involves the payment of foreign currency costs. This is clearly seen in ER.SL as it has to either face the problem of employing local personnel with a low level of training and face the difficulties involved in the expensive training of its crew in colleges and academies abroad, or continue paying huge salaries to foreign crews with higher qualifications on board its vessels in foreign currency. Apparently, the company has understood that training its personnel is the necessary course of action that has to be taken in the future. To this effect, the company is trying to provide basic training locally in co-ordination with the Eritrean Navy; to lay the base for the professional education and training that requires programs, which are time consuming and costly, both in terms of infrastructure and application.

Training of personnel is a very expensive and time consuming process if it is to be done abroad by sending the trainees to other academic institutions with a high level of training capacity, since it involves the continuous improvement and upgrading of capabilities of both the shipboard personnel, such as marine navigators, engineers and ratings, and shore-based marine personnel and managers due to the changing technical sophistication of vessels and the implementation of the ever increasing requirements by the international communities in the safe manning and operation of vessels.

4.4. INFRASTRUCTURE

Infrastructure has a huge influence on the performance of shipping lines in undertaking their operations effectively. Therefore, a brief discussion about the low level of development of such facilities as port, communication, repair & maintenance, agency and financing services and their effect on the services provided by the national shipping company (ER.SL), will be given in the following paragraphs.

4.4.1. Port Services

The infrastructure of the ports in Eritrea, as explained in the first chapter, are in a very poor condition due to the damages from the long sustained war, lack of modern machinery and equipment, lack of adequate managerial expertise and skilled

manpower. These, added to the poor planning and management of operations and lack of supervision in handling activities, have resulted in the slow stevedoring services and lower productivity and longer turn-around times of vessels. The longer the turn-around time of vessels the higher will be their cost of operations and higher must be the freight rate that they charge. Unfortunately, the smaller companies (like ER.SL) have to continue charging the same freight rates in order to remain in competition with the bigger lines who can afford to absorb the increase in costs due to the increase in turn-around time through ocean freights rather than the feeder rates of freight.

4.4.2. Communication and Information Processing

Shipping is an international business involving many players all around the world. The shipping industry requires huge amounts of information to conduct its business and remain in the forefront of the competition for market share. These include information from vessels, agents, brokers, charterers, customers, etc. about operations, market situation, freight rates, cargo structure, vessel prices, bunker prices, port costs, national and international regulations, etc. Therefore, the management of a shipping company has the responsibility of collecting, analysing, and co-ordinating this information using different forms of communication and information processing procedures to create short and long term objectives that would lead to the success of the company. Additionally, the company has to disseminate the processed information to the relevant departments, authorities, partners, clients, etc., and see that it is all relevant and understood by those who receive and use it. This calls for the existence of a well-organised communication and information processing system, internally and externally, with the aim of providing the right information at the right time.

Unfortunately, the overall communication and information system in Eritrea is not yet advanced and can be considered as a bottleneck in the operations of the shipping companies causing un-required delays and complications in the services they provide. For instance, in the short distance services within the Red Sea and Gulf area, where the sailing time of the vessels is short, ships arrive at the port before the documents are mailed to the agents and relevant authorities. This creates complications of releasing

cargo on the basis of copy bills of lading and letters of guarantee presented to the head office of the company, which subsequently gives instructions to the agents. This would have been simplified with the use of Electronic Data Interchange (EDI) procedures, which are not yet in practice in the nation in general.

The company has not been able to benefit from the highly advanced information technology available for the shipping world such as the Internet, E-mail, Inmarsat and other satellite services. It has not been able to introduce electronic transfer of documents with its agents, representatives and partners due to the low level of development in the communication facilities in the country and the maritime sector in general.

Although the use of computers has been introduced in the day-to-day operations and for accounting purposes, the company has not been able to expand this into higher standards, which can simplify the management process of its fleet due to the lack of computer know-how within the organisation and the inefficient documentation procedure that could serve as a background for computerisation.

4.4.3. Repair and Maintenance Services

Although the vessels of the ER.SL, as a general policy have to spend 20 to 30 days each year in regular maintenance, thus need frequent maintenance between voyages due to their old-age. Therefore, the requirement for maintenance of the vessels is very high and can not be conducted on board the vessels due to the low level of training of the crew, hence, a need for ship yard services. However, the ship repair yard in Massawa is limited in capacity, has poor quality of services and charges high prices. As a result, the company has to take the vessels to foreign ship yards for major overhaul, repair of electronic navigational and communication equipment and dry docking. Even for the repairs conducted by the local ship yard the company has to supply the yard with various spare parts and materials, since it lacks adequate stocks. Generally, the inefficiency of the local ship yard has not been able to help the company in saving its foreign currency earnings.

4.4.4. Agency Services

It is widely accepted that agency service is of vital importance to shipping business, as agents represent the company in places where it can not operate through its own representatives and are involved in the cargo canvassing and marketing of the company's services. ER.SL has agents in all its market areas, including the Red Sea region, the Gulf areas and in Europe. Due to the lack of efficient information and communication systems within the country, ER.SL has faced several problems in the past and has been addressing them as they deemed necessary.

The agency service in Eritrea is monopolised by the Eritrean Shipping and Transit Agency Services (ER.STAS) to all ships calling in the Eritrean ports of Massawa and Assab. This monopoly is believed to be the cause of its inefficiency and ER.SL, like all the other shipping companies, has suffered heavily from the lack of fast transfer of information, specially regarding the financial conditions. The slow exchange of financial documents has made it difficult to assess the performance of the ER.SL in time and take the proper measures to rectify deficiencies. Although ER.STAS has been taking several steps to improve its efficiency, it has not been able to overcome its deficiencies yet and this has been evident in the operational performance of the ER.SL and other companies in general.

As a sole agent ER.STAS provides agency services for companies, which have a conflict of interest, competing for similar cargo in the market and, therefore, it has a difficulty in conducting cargo canvassing services for the shipping companies it represents. Therefore, ER.SL has not been able to get the required assistance in cargo canvassing from its local agents and faces higher competition, since most of the shipping companies are obliged to have their own representatives in the market.

4.4.5. Ship Financing

Shipping is capital intensive business and the sums required for the purchase of vessels, either new buildings or second-hand vessels, are beyond the resources of the shipowners, particularly in developing countries. The inadequate supply of financing

capital, specially in terms of foreign exchange, is identified as one of the main problems facing developing countries in the process of shipping development. The shipping companies in developing countries, due to the limited resources, and in many cases shortage of foreign exchange, cannot afford outright purchase of new or second-hand vessels. Therefore, they need to seek funding from the major sources of finance, which are the shipbuilding industry credits, and loans raised in the financial markets or international banking system.

ER.SL is no exception to this problem. The company acquired a bank loan for the purchase of its Ro/Ro vessel in 1996 and a loan from the government to cover the cost of the new ship in 1998. Given the existing freight rates and looking at its financial performance the company will not be able to expand its fleet from own sources and it cannot continuously depend on government loan which compete for the scarce foreign currency resources of the country. Additionally, the national banking system is not yet developed and expanded to such an extent as to satisfy a significant part of the financial requirement of the shipping industry in Eritrea. Therefore, the company will have to meet the challenge of developing an adequate financing scheme in order to satisfy the requirements of the international finance sources. The international finance institutions attach importance to the company's managerial ability, shipowner's skills, management expertise and reputation, as well as the country's potential in international trade, to provide financing. As professor Mottram pointed out, banks focus on the credit-worthiness evaluations of the companies, i.e., banks want to be confident about the experience and expertise of the people to whom they are lending and see a complete feasibility study on how the loan is to be repaid (Mottram, 1999*b*).

The implications of all these are that ER.SL, being a small regional operator with lower managerial expertise will face a strong challenge to acquire financing for expansion both from local and foreign sources.

4.5. INSTITUTIONAL CHALLENGES

4.5.1. Policy Issues

There is no clear policy designed to maximise the benefits of international trade, through the exploitation of the natural linkages between trading and shipping in Eritrea. As a result of this, the Eritrean exporters concerned themselves primarily with the FOB terms while the importers only saw the total landed costs of their consignments as their suppliers generally supplied them on the basis of the CIF prices. In consequence, the foreign buyers and suppliers have to decide on the freight rates and other conditions at which the cargo generated by the Eritrean trades were freighted and carried, with preference going to the foreign carriers. This leaves out the national shipping line from benefiting from the foreign trade of the country.

4.5.2. Maritime Administration

Even though there is political commitment for the development of the maritime administration, the lack of appropriate, sufficiently qualified and experienced nationals, lack of training facilities, inadequate investment and infrastructure and out-dated maritime code have hindered the effective functioning of the maritime administration in Eritrea. All these problems coupled with the large number of conventions, regulations, guidelines and other procedures that exist in the maritime industry, have rendered the administration unable to provide the necessary guidance to the development of the national shipping line as an infant industry.

The implementation of the ratified conventions to meet the relevant safety standards of IMO requires ensuring safe manning, certification, examination, proper and adequate education and training of seafarers. Presently, the maritime administration in Eritrea is not able to provide the examination and certification of competency to evaluate the level of qualifications of all officers and seamen, since there are no appropriate institutions established yet. Therefore, the national shipping line has either to send its seamen abroad to acquire the training and certification or hire certified foreigners.

However, the department of maritime transport has created a mechanism of issuing certification of competency to its nationals, who obtain certification in foreign countries, when requested by the national shipping companies.

4.5.3. Government Role in the Protection of the National Shipping Lines

It has been a commonly accepted fact that protection of national shipping lines has been a principal policy of many countries. Professor Frankel, writing on protection for the development of national fleet, identified four major policies. These are cargo sharing or reservation, cargo preference schemes, preferential port facility allocation and preferential exchange rates for national shipping (Frankel, 1988). In this respect the Eritrean international trade is based on free and non-restrictive practices, as mentioned above. The national carriers are entertained with the cabotage services, not because of any restrictions but mainly due to the fact that there is a very low volume of cargo transport and other shipping lines are not interested in sharing the services, which have to be served at a very low freight. Therefore, the government has not played its role in protecting the national shipping line as an infant industry, which would have increased its market share and consequently, its profitability.

Although these protection schemes might be a cause for inefficiency in the national shipping lines, there is a need for developing the infant national lines through cargo reservation against the stiff competition they face in the shipping industry until they reach commercial viability. If there is no protection, competition will leave the small national shipping lines, like ER.SL, at the mercy of the big highly advanced shipping lines, which would cut them out of the international trade of the nation.

CHAPTER FIVE

5. PROSPECTS FOR DEVELOPMENT THROUGH EFFECTIVE MANAGEMENT (TOOLS FOR IMPROVEMENT)

It can be clearly seen from the previous chapters that the Eritrean Shipping Line (ER.SL) is a company struggling to promote itself to a position of a competitive organisation in the international trade of the Eritrean markets. Despite being small and all the outlined problems and challenges that exist in the Eritrean economy as a whole and the maritime sector in particular, the company has been able to sustain a level of profitable operation and it can generally be said that it has a moderate performance level. However, in order to effectively achieve its objectives in light of the stiff competition and continuous change in shipping as an international business, and overcome the obstacles in its performance, the company needs to improve its management and operational activities by enhancing its managerial expertise. There are different managerial techniques that are developed for improving management and its effectiveness.

Therefore, in this chapter a discussion of some tools for effective management in general and shipping companies in particular will be presented and related to how they can best be implemented and improve the management of shipping companies in Eritrea. Two tools of management, strategic management and quality management, are chosen for discussion which will be followed by the basic elements for their success in the short and long run, manpower development and training and information technology. The focus will be on what the advantages are, what are the requirements and how can they be implemented. This will be related to the opportunities that the shipping companies have in the overall situation for successful implementation of the techniques and the international maritime situation.

Definition of Management: Management can be defined as "the process by which a co-operative group directs actions toward common goals" (Massie, 1987, p.3). It involves the techniques and systems by which all the resources of an organisation are co-ordinated, to respond to the external influences exerted, to successfully achieve its objectives. Therefore, anyone involved in management should be equipped with the knowledge and understanding of the forces acting in a given situation in an organisation and gain control over them.

Management of a shipping company involves several steps that are the same as in any industrial company except that the risk of managing and operating a floating object at sea, which is subject to different laws at different locations and is in contact with different cultures and procedures of work is much more difficult and requires a very high level of co-ordination, which can only be achieved with a properly set-up managerial system.

5.1. STRATEGIC MANAGEMENT

Strategic management as professor Mottram pointed out in his lectures is the means by which the future of an organisation is determined in terms of how the resources; including things, people, money, processes and time, are best used to meet the existing opportunities or those that could be available (Mottram, 1998*b*). It is the responsibility of the top management to see that the company has set up the right strategy in place to implement, direct, organise, control and communicate the activities within the organisation to achieve the long-term objectives established based on strategic planning.

5.1.1. Strategic Planning

Writing about strategic planning Camillus (1986, p.10) says it is an analytical process involving the assessment of the future, the formulation of goals, and the development and selection of alternatives in the context of an organisation's long-term objectives. Relating strategic planning to port systems Hochstein (1988, p.25) states that it is a means by which organisational capacities are matched to the risks created by the internal and external environment. He further elaborates that it helps in developing a

strategy that takes advantage of the opportunities, counters the threats, enhances the strengths and mitigates the weaknesses of the ports.

In general, shipping is subject to changing economic, trade, technological and environmental conditions. Hence the application of strategic planning in shipping companies have to be comprehensive to enable them to create a dynamic and effective management with the ever-changing external and internal factors. In addition to those factors identified as influencing the structure of shipping companies in chapter four of this paper, according to Frankel, strategic planning has to address many factors among which are the following:

- competitive factors introduced by domestic and foreign competitor shipping companies,
- competition from lower cost ship operators with more advanced technology, higher productivity, etc...
- risk of new entries or mergers to form formidable competition,
- market factors which include marketing approaches, changes in market demand, which affect the structure of competition,
- changes in market form and composition,
- national and international laws and regulations, government decisions, political policies, legal organisations etc. affecting marketing of service potentials,
- laws and regulations that affect the resources
- manpower and financial resources availability and access, sources and substitutes,
- changes in labour availability, work rules, regulations, community acceptance,
- social factors such as attitudes, customs, beliefs, education, morality and ethics etc....
- technological factors, including research and development support, process and product technological change generated by competitors or provided by governments, new technology, new markets, innovation and changes

- the quality of service provided by the company, financial ability, communications, organisation structure,
- market range, share and growth (competitiveness)

(Frankel, 1989)

Based on the discussion presented on the paper and in light of the above factors here are some fundamental factors that the ER.SL should address in formulating its strategy.

Opportunities and/or strengths:

- fast economic growth in the country,
- dedication to national shipping line by local importers and exporters,
- growing market share,
- availability of a growing number of ship management companies,
- availability of advanced technology in ships and communication facilities internationally,
- low taxation level and international crew manning,
- commitment of management towards growth,

Threats and/or Weaknesses:

- highly competitive and limited market range,
- low cost foreign operators with advanced ships,
- increasing requirements in international regulations and tighter controls and surveys with regard to safety and manning of ships,
- higher security demands for financing by international banks,
- rising foreign crew costs in the international market,
- financial resource limitations,
- limited managerial, technical, operational, marketing etc. know-how,
- technological level of vessels,
- low level of port, communication, and other ancillary services nationally,
- policy of the government not to provide protection to national shipping line.

The analysis of all the various factors present in the internal and external environment of the company lead to the formulation of mission statement, strategy and policy of organisation, and the resources to implement them.

5.1.2. Mission Statement

The mission of an organisation is the specific and well-defined roles and activities on which the organisation chooses to concentrate its efforts, including specialisation and diversification, with respect to the customer satisfaction. According to Drucker, the clear definition of the mission of the business is the foundation for priorities, strategies, plans, and work assignments where the structure should originate from (Drucker, 1988, p.68). Therefore, it must show the vision of the company, be clearly stated in a written form and understood by all the employees of the organisation who have to work towards its achievement. A question that pops into mind is then what is the mission statement of the ER.SL? In what way does the company present itself before the customers whose individual interests are far from the interest of the company? To the best knowledge of the writer the company seems to have no specific mission statement other than the generally stated policy statements and objectives. Therefore, it needs to lay down a mission statement that emphasises dynamism of its quality of service and the potential for future prospective developments but "HOW?" The top management has to clearly understand what it thinks is obvious and ask such questions as What business is the company in? What should be its business? Who are its customers? Where is it heading at? What are its strategies? Strategic planning and SWOT analysis could be used to answer these questions and identify the opportunities and threats now and in the future and clarify the strengths and weaknesses of the company, as viewed internally by the staff and externally by customers taking into account the factors presented in section 5.1.1.

5.1.3. Strategy and Policy of organisation

With a clear understanding of the business and the scope of activities by establishing the mission statement, the company needs to select the strategy to follow to achieve its long-term objectives. In choosing, alternative strategies are evaluated to identify the

effective strategies, which give the highest expectation of achieving the company's objectives. For example, a set of strategies that maximise profitability of the company, if the objective is set at a certain profit level in a specific period of time. This strategy involves the different means of seizing the opportunities and mitigating the threats, using the distinctive competence of the available resources while avoiding the weaknesses within the company. It provides answer to such question as What kind of service? To whom? What quality? etc., presenting the dimension of the diversification and alternatives available in the achievement of the long-term objectives set out by the company and enables it to determine its focus.

The strategy has to be laid down by the top management after fundamental choices are made in major functional areas of the company taking into account the uncertainty, risk and availability of resources. For instance, in the ER.SL such critical choices in the different departments could include such alternatives as:

Operational:

- retain versus out-source ship management,
- passenger versus cargo services, or both,
- container versus conventional vessels,
- second hand versus new building,
- chartering versus purchasing,
- container leasing versus owning,

Finance:

- debt versus equity,
- short-term versus long-term debt,

Human resources:

- centralised versus decentralised management,
- team management versus top down management,
- high salary foreign crew versus low training local crew,
- training in institution abroad versus on the job training,

Marketing:

- focused versus diversified,
- limited versus multiple market segments,
- proactive versus reactive in relation to customers,
- cost leadership versus differentiation,
- lower cost operator versus high quality operator,

After the choice of alternative is made and the strategy of the company is laid down the top management has to establish organisational policies that define the desirable and unacceptable management practices. The organisational policies determine the attitude of the company towards the quality of its service such as approach to dealing with customers, clients, creditors, and suppliers (quality policy) and its dedication towards implementing the regulations provided by local authorities and international regulatory bodies with regard to its operations (environment policy, drug and alcohol abuse policy, safety policy). The company also formulates the internal policies, which are used as a guide for decision making. These include financial, employment, training, communication etc. as required by the company depending on the type of choice of the management strategy to be adopted.

5.1.4. Organisational Structure

The company has to match the structure to the strategy to accomplish its mission. The structure of the company should be lucid with importance placed on effective communication. The process of structuring includes the grouping of activities into a logical pattern, assigning the activities to specific positions and people, and providing the means for co-ordinating the efforts of individuals and groups. The structure of the company operating specially in a limited market at this time should be very lean and have as small departments as it can be squeezed in. However, it should be understood that the structure must be flexible enough to entertain any changes in the strategy of the company in attaining its objectives and accomplishment of its mission.

5.1.5. Evaluation and Review of the Strategy

The implementation of the strategy requires constant monitoring and evaluation to conform the actual results with the desired performance levels. In this review process the company needs to make an evaluation of the level to which the opportunities and strengths are turned into advantages and the threats and weaknesses are mitigated or avoided. Additionally, it needs to identify if other new factors have emerged that would necessitate a change in the strategy of the company towards its objectives. It is essential, indeed, in shipping companies, which are subject to changing economic, trade, technological, and environmental conditions. These ever-changing external and internal factors create a need for designing the objectives with an effective feed-back mechanism, which assures continuous updating to ensure their relevance to the actual prevailing situation.

5.2. QUALITY MANAGEMENT

The fact that quality management has become a basic tool for business improvement strategy and is essential for efficiency and competitiveness makes it the prime management issue of the future. Quality management is defined by Hakes as "a management technique that strives to make the best use of all available resources and opportunities through constant improvement". (Hakes, 1991, p.3). It is quite evident that in any business there is a potential for improvement in the dynamic and ever-changing global market place. As Mottram puts it, there are always better ways of doing things and everything is changing (Mottram, 1999*b*).

5.2.1. Quality Management and Management Roles

Quality is a customer issue. It arises because customers require services, which not only meet their performance requirements, but are satisfactory in terms of safety, reliability and price. Quality management is a technique designed to involve all parts of the business in pursuit of, and commitment to, the highest quality result. The basic aim of quality management is to develop a quality system which mobilises resources so as to create satisfaction of customers' needs and expectations while working to satisfy the company's interest. This customer satisfaction provides a basis for

establishing competitive measures, performance targets, better communication and, in consequence, a process of continuous improvement, thereby improving the role of management in the company.

5.2.1.1. Quality Management Concepts

In order to lay down the foundation to understand what quality management involves and how it is to be implemented in a specific business, such as shipping, some basic concepts of quality as developed by Hakes are presented (Hakes, 1991).

- **Customers (internal and external):** the main theme of this concept lies in the fact that every employee of the company should be able to satisfy its internal customers (staff or department), hence the external customer (service user) is satisfied. In this relation all the departments in the shipping company should perform in such a way as to satisfy the other departments and likewise the employees. For instance, if the operation division has not done its job of promptly providing the necessary bunkering to a ship for a voyage (internal customer) delay will be created resulting in the dissatisfaction of the consignee(external customer).
- **Never-ending improvement:** the improvement of efficient service provision should be continuous, i.e. achievement of a specific objective should lead to more higher objectives and so on. This improvement should be through continuous assessment of the satisfaction of the customers and trying to exceed their standard. In shipping these could involve ensuring that the shipper's instruction are properly carried out and presenting suggestions on how the job could be performed better.
- **Control of business process:** In this regard Mottram has stated that if the processes and ways in which the parts of a shipping company working together are made more effective, the result will be a more effective organisation in general (Mottram, 1998*a*). This requires critical analysis of the processes involved, in ship operation and management. Such processes could include purchase of materials, maintenance of ships, bunkering, victualing etc.
- **'Upstream' preventive management:** management should place more emphasise on avoiding causes of failure than on fighting failures.

- **Ongoing preventive action:** deals with the identification of the causes for a specific problem, finding the remedy, and preventing its repetition in future circumstances. Settling claims for cargo that was stolen on board a ship, for instance, should be recorded, and investigated to detect how it has happened on a "no blame" basis to avoid any chance of its recurrence.
- **Leadership and teamwork:** the top management should be able to lead, motivate and commit all the staff of the company towards the objectives utilising their abilities and talents to the maximum. This can be implemented only if the top management is fully committed and involves everybody in the organisation.

5.2.1.2. Quality Management Elements and Implementation

Quality management can be successfully implemented in an organisation and its advantages fully consummated if all the elements that are involved in the system are well defined and the necessary resources are provided and matched with all the responsibilities required to achieve the end results. The elements of a quality management vary from author to author, therefore, under this topic a presentation is made on the inherent functions involved within the elements. These are:

- Establishment of a quality mission, policy and objectives that would identify the company's dedication towards the satisfaction of its customers and beyond,
- Planning and laying down what the basic areas of services the company will be involved in and what resources are to be mobilised and what processes are to be used,
- Establishment of the objectives of each area of business in regard to quality achievement, which is based on the setting of specific targets and measurement that would enable the measurement of the overall progress of the company,
- Development of procedures on how specific activities are to be performed and definition of the responsibilities and means required to obtain the expected results,

- Development of techniques of internal performance evaluation of the process, to make sure that procedures are followed and to monitor their contribution towards quality,
- Development of management review schemes to assess the quality system in light of the overall objectives of the company (internal and external audit), the satisfaction of consumers (surveys), and in comparison to its competitors (benchmarking),
- Placement of a mechanism for identifying potential areas of improvement to achieve continuous improvement based on the management review and assessment of the changes in the business environment to increase the effectiveness of the company.

In addition to the functions presented above, the success of quality management depends on the management's role towards improving the following activities.

- Educating and training of all personnel to create quality awareness and to be able to use their talents to the maximum by comparing the current and desired level of performance
- Establishing adequate and open communication means that would enhance teamwork and leadership to proceed effectively with feedback mechanisms,
- Establishing a recognition and rewarding scheme that depends on performance,
- Establishing a data collection and information management system that would enhance the analysis of the internal and external environments affecting the performance of the company as well as the employees,
- Introducing changes in culture of the organisation, sharing benefits and responsibility.

5.2.2. Benefits of Quality Management

The basic reasons behind management improvement are the overall growth of the company and the satisfaction of customers, which are the aims of quality management. According to Drucker, the role of management is to set objectives, to organise, to communicate, to motivate, to measure and control, and to develop and train. (Drucker,

1988) These roles are all inherent within the system of quality management. Therefore, the benefits of its implementation will be the improvement of effectiveness of the management in directing the company towards success in addition to those listed below.

- **Prevention of Mistakes:** quality management requires identification of potential areas of failure, quick response to failure when it occurs, and preventing similar failure from recurring taking corrective action. Therefore, it minimised the occurrence and recurrence of mistakes.
- **Reduce Cost:** the reduction of mistakes, which cost both money and time means there is a reduction in the overall cost of the process.
- **Improved Profitability:** the creation of customer satisfaction and improvement of the product will increase the sale of the service of the company and thereby increase the income of the company.
- **Enhanced reputation:** the reputation of the company as a reliable source of service with a properly set-up feedback mechanism and a quick response to customer requirements will create trust and good image for the company. This gives the company a competitive edge.
- **Improved morale and confidence:** staff of the company will have higher morale and enthusiasm with the introduction of teamwork and the knowledge of their role in the service of the business and the success of the company.

5.2.3. Quality Management in Shipping

A Shipping company, in its normal operation, has to consider the following issues of economic survival, employee welfare, cost control, customer satisfaction, society welfare, safety, reliability, protection of environment, compliance with IMO regulations and guidelines, flag and port state regulations, classification society rules, insurance and P& I clubs as well as other international and national regulations. This shows the extent of how complex the shipping business is. In addition to this complexity, there is a very high competition, which forces companies to look for more and more efficiency and effectiveness with safe management and operation of their

ships to stay in business. Towards this end many quality standards and codes have been produced by international organisations to assist in effective management, including the ISO series, ISMA code, ISM code, BS series etc. However, as far as ship management is concerned the most important and a compulsory one is the ISM code imposed by regulatory bodies on the companies.

The ISM code is basically concerned with the existence of a safety and environmental policy, defined levels of authority and lines of communication between and amongst shore and shipboard personnel, operational procedures, and auditing and review procedures. (Mottram, 1998*a*). Therefore, the ISM code structure includes the principles of quality management implicitly and Allevi suggests that the application of the ISM code should be supplemented by quality management in order to achieve effectiveness, flexibility and economies in shipping while complying with the regulatory requirements of authorities. (Allevi, 1992).

Quality management in shipping companies should be implemented starting with all the managers of the departments taking a systematic look at how they carry out their functional duties. Then the managers decide on which procedures require to be documented, identify who has the key areas of responsibility and on how documents and information will be distributed. These should then be followed by the assessment of the internal and external customers in order to identify the elements that should be included in the whole process of quality with the involvement of all the staff and every activity. Lastly, the measures of performance assessment should be laid down to assist in detecting any procedural non-conformance, non-compliance with regulations and non-fulfilment of customer satisfaction. The findings then will be the basis for taking corrective actions and identification of potential areas for improvement within the quality management system.

Quality management will make it possible for the shipping companies in Eritrea to better understand the functioning of the organisation, to measure efficiency and to exercise control over cost; in addition to the change in culture. The cultural change

would be the change from the organisational success through profits to customer-oriented measurements with long-term benefits. However, its application will require an extensive evaluation of the existing management practices and the total commitment of the management towards change and better results from change. This will necessitate the redesigning of the whole management structure and organisation of the company.

In conclusion, quality management in a shipping company should be designed in such a way that would cover all its obligations in respect of the customers and regulatory bodies with improved utilisation of its human and material resources that would lead to minimum cost and provide it with competitive edge.

5.3. REQUIREMENTS FOR THE SUCCESS OF THE MANAGEMENT TECHNIQUES

In this part of the paper the discussion will focus on the two basic elements, manpower training and information management, that should be fulfilled if the management techniques are to bear fruit and lead to the success of the company. Moreover, the external opportunities available for shipping companies, ship management, to improve their managerial capacity and achieve the objective of implementing properly the two basic elements of success will be highlighted.

Mottram says that the world is becoming more and more oriented towards knowledge rather than material and capital resources, and knowledge can be gained if there is training and information to the staff and management. When elaborating the importance of knowledge he said the most successful companies in the world at the moment are those who have acquired the most qualified personnel and provide them with necessary information that they need to operate within their sphere of activity (Mottram, 1998*a*). Therefore, success has become a synonym to information and knowledge.

5.3.1. Manpower Training:

In order for any shipping company to survive and grow in the current commercial and legal environment, it must operate safe, environmentally sound and commercially

reliable ships. Ships manned by untrained or incompetent seafarers endanger not only the lives and cargo on board, but also their danger extends to other vessels sailing, the ports, the environment etc. Hence the need for the training of manpower and development of managerial capacity that would be able to create a sound and proper base of operations for the ships and lead to the profitability of the company. To the effect that ships' danger encompasses a wider scope and the nature of shipping is international, there are several international regulations that are laid down to control their operations. Among these are the STCW convention and the ISM code, which basically deal with the human element or manpower aspect of the operation of ships for safe manning and operations of ships as well as their management.

5.3.1.1. Regulatory Requirements

The key point of the STCW is that it recognises that people are of critical importance in any effective organisation, and that training and education are essential to develop the skills and competencies of those people. It also recognises that this will be the basis for achieving a safe working environment in all areas of operation of ships (Morrison, 1997).

The ISM code supports the STCW but it emphasises upon continuously improving the safety and operational management skills of personnel ashore and afloat, and on personnel being appropriately qualified and certificated according to the national and international requirements (IMO, 1994).

It is appropriate to see that the competence of seafarers and responsibilities for shipping companies has a very close relationship. The procedures that are provided in the ISM code can be carried out and/or facilitated more effectively by competent personnel in accordance with the STCW convention.

Shipping companies, therefore, have to satisfy the regulatory requirements if they are to remain operative in the business, basically with the introduction of Port State Control, which restrains the operation of ships, which are not manned or do not have the necessary certificates of safe operation, in accordance to the provisions in the

regulations. The expansion of the port state's role in ensuring that all internationally agreed standards are being complied with extends the need to maintain the minimum standards. The increasingly tightening port state control in Europe, North America, the Pacific Region and in other areas, will limit the geographical areas where poorly manned ships may be able to operate. This leads to shipping companies' disappearance from the market areas sooner or later unless they develop a comprehensive plan for their manpower requirements to ensure there is a continuous and adequately qualified personnel both on board the vessels and ashore.

The ER.SL has been limited in its operation to coastal trade in the, Red Sea and the Gulf region. However, it is considering expansion of its market to Europe and the Far East where the port state control is tighter and non-compliance leads to the detention of the vessels. Therefore, before starting the operation the company has to evaluate carefully the benefits and costs in accordance to crew training needs and the employment of qualified personnel who meet the requirements of STCW competence levels. Is it feasible that the company can operate its ships to the level of the standards as laid down by the international regulations as well as the national requirements of these new market areas, which maintain, most of the times higher levels of requirements than the international minimum. This has to be critically considered before it starts its operation to these locations, which may hamper its future development by increasing the operating costs, whose basic component is the crew cost, and result in the decrease of its profitability.

5.3.1.2. Development of Manpower:

Training is related to manpower development planning in a company. Any shipping company has to develop a long-term plan of training its employees. This plan has to be formulated after analysing the training needs of the company in relation to the existing level of the employees, and evaluating them against the minimum requirements based on international and national standards that are related to its operation. That is, the company should at least train its employees to achieve the minimum standards laid down by authorities in order to operate in all areas of the shipping business.

The training of manpower is an on-going process, specially in the shipping industry, which is subject to tremendous external influence, and has to cope with different regulations. The investment in manpower for the shipping company should be considered on a long-term benefit basis and it requires commitment for development in the future. The mere success of the company depends on the quality of people that it employs, and who are striving always to progress through continuous training.

Shipping companies would benefit from properly formulating and implementing a manpower development plan in meeting the requirements of national and international regulations, getting better performance from crew and safe operation, thereby reducing the accidents and claims it might encounter and improve the quality of service it provides to customers. Training boosts morale of the employees, creates self-confidence in relation to the management and enables the company to use its employees to their maximum potential. Furthermore, it expands the employment opportunities of seafarers at sea and ashore, while protecting the marine environment and providing an adequate and appropriate maritime infrastructure.

Training must continue in order to raise the quality and knowledge of employees and create confidence and trust in the organisation. The success of any management procedure or technique depends on the training of the employees, whether acquired before or after. For instance, training is an integral part of the quality management. Implementation of a quality system can not give the expected results unless there is full involvement of all employees, which can be achieved only with the support of a well formulated training based on the procedures laid down in the quality system. Training would help the employees to build a common understanding of the organisation's purpose, to show management commitment and loyalty to employees, to develop people so they can increase their responsibilities and contribute to the organisation in a more advanced way. Top management must have confidence in the employees and this confidence can come from the adequate training and experience of the staff, which leads to trust. Trust, as Mottram says, is the key of success in any management scheme

(Mottram, 1998*a*). It leads to more authority and responsibility to be given to the employees and avoids the lack of involvement in decision making, which is a strong de-motivating factor.

A training need exists when there is a gap between the present skills and knowledge of the employees and the skills and knowledge, which is required or will be required in the future. In this perspective there is a national under supply of skills and knowledge, e.g. in the technical field, managerial expertise, and others in Eritrea as was explained in chapter four. Therefore, to acquire an adequate supply of skilled manpower in all fields becomes the responsibility of all the companies involved in the shipping industry and the Department of Maritime Transport (DMT), which has to ensure, according to its policy, the development of human resources. A co-ordinated training scheme would provide a pool of maritime skill from where the shipping companies can draw for future success. Without this co-ordination and the huge cost of training abroad with the lack of a local training institute, the highest responsibility will lie on the department.

Training needs in the Eritrean shipping companies should include chartering, legal framework of shipping, operational management, regulatory framework and financial management. Although the training of manpower will necessitate sufficient financial resources to develop and maintain, ER.SL has at least to keep manpower training and quality standards in line, with what is imposed by national regulations and international conventions. The company will require a very substantial recruitment and training effort if its vessels are to be properly manned and its market share increased in the future. In addition, it has to implement appropriate methods of retaining properly trained employees, since acquisition of efficient modern vessels for expansion will require the existence of adequate management competence in organising and running their operations. Generally, the training challenge has to be met in a much more constructive and determined way than has been before in the country and the company has to look for training through partnership with companies

from the advanced countries and develop the co-operation with the Eritrean navy to incorporate its demands in training.

Any management technique can not be successful without qualified manpower hence training becomes imperative.

5.3.2. Information Management

Information management is very important for it affects all the central activities of managerial functions of decision making, organising, staffing, planning, controlling and directing. Management depends on the information, which it is able to acquire through various means, to play its role in the organisation. It involves the collection, recording, storing and processing of data to assess past and present internal and external environment in which the industry operates and decide on the future trend of the organisation setting up certain targets (objectives). The application of any management system requires a properly set-up information management system, otherwise the expected results can not be achieved. Camillus, speaking on the importance of information management system, says that the management of a company depends on the information system it has as the body depends on the central nervous system (Camillus, 1986, p.102). Therefore, the existence of a properly set-up information system becomes a pre-requisite for a company's successful survival.

5.3.2.1. Information Technology Facilities

Shipping is an industry where communication is a very important activity. Communication includes exchanges between ship and office, client and operations, internally between crew and staff and it involves an effective exchange of information. The extensive exchange of information has to be managed properly for the smooth functioning of the company and achievement of its objectives in the time frame outlined. The rapidly growing information technology can be utilised to assist in facilitating the organisation and management of information more efficiently and in a productive manner. These are E-mail, Internet and off-the-shelf management programmes (software) which are, as computer experts call them, “user friendly”. They are used in the smooth and speedy dissemination of information to anywhere

around the world. Their proper use enhances the competitiveness of the operating company.

There are a wide range of information management methods, off-the-shelf softwares, that are available for shipping companies to assist them in decision making procedures and conducting various tasks of analysis of performance and forecasts, in addition to the general services provided by the boom in information technology the Internet and E-mail services have brought. Cremers said that "The possibilities are only restricted by one's imagination. The technology is available and ready to be used" (Cremers, 1999, p.236). The advance in the information technology field vastly increased the speed and the volume of information that is communicated to, from and within the organisation. However, the selection of the necessary tools is very important, i.e. the technology that the company chooses and the information processing packages should be flexible enough for easy integration into other programmes that would enhance its activities in the future. The key words to remember when investing in any of the information management system and decision making processes in shipping companies are flexibility, integration and connectivity. (Solomou, 1998, p.334)

5.3.2.2. Benefits of Information Technology

Information technology is becoming more and more the source of success for the community in the shipping business as the writer was able to understand from the discussions of the various shipping companies visited during field trips. The faster the information is transferred from the consumer to the supplier and vice-versa, the higher the output received in the company's successful implementation of its managerial objectives. The company that introduces a very highly integrated information management system is the one to be successful in the sense that it develops a competitive edge.

Information technology can save cost, add customer value and provide competitive advantage, in addition to the various advantages that it provides in the processing of

activities in the procedure. Some of the many advantages of IT as related to electronic transfer of data are:

- savings in cost avoiding repetitive clerical works and re-entry of data,
- minimise human error in re-entry and transmission of data,
- easier access to data and quick retrieval and storage of information,
- simplifies the working procedure of the daily operations and facilitates operational follow up,
- improves information management through higher ability to validate and analyse information to support decision making,
- makes data exchange very flexible and easier than on paper with speedy transfer,
- reduces the intervention of manual and paperwork, and increases the efficiency and quality of work leading to maximum satisfaction of customers,
- allows quicker processing of invoices and facilitates speedy payment, thus improving cash flows,
- facilitates logistical service, supply chain management, and just-in-time ordering, manufacturing and delivery,
- better training opportunity through the use of computer assisted teaching methods to effective processing of operations.

Internet: The advantage of information technology as related to information supply and dissemination in addition to electronic data transfer is the availability of the Internet. Internet is a world-wide group of computers linked by a high speed communications network. It is a global communication network and a multi-media information resource. It provides many benefits to the shipping world. David Favre, writing about the advantages of the Internet to the shipping industry said "...the Internet has specific relevance presenting opportunities across a wide range of activities from safety, training and legislative compliance to crisis, technical and commercial management as well as general administration and marketing." Further he says, "The shipping industry is without doubt one of the most globally located, diverse, regulated and complex trading environments that exist. An infrastructure service that assists in

gathering, organising, classifying and disseminating world-wide information on shipping-related products, services, legislation and experience will be beneficial to individual users, companies and the industry as a whole". (Favre, 1996)

The introduction of the Internet services would assist shipping companies, like ER.SL, to acquire:

- expert knowledge from the information available in the Internet,
- share experience of other companies who are in the same business,
- broaden the understanding of the business in the employees,
- easier access to many maritime, management etc. publications on-line,
- follow up the progress in the shipping industry, and regulations of the different shipping regulatory bodies,
- follow up the response of the big shipping companies and what their strategies are towards fulfilling the continuously changing customer demands,
- search for partners who can be of assistance in a specific field,
- expose the employees to the international shipping business and its trend,
- locate suppliers of products, spare parts and other items around the world,
- identify available training opportunities for management, employees and seafarers.

E-mail: E-mail is a system for sending messages to the account of the other computer users. It works like a regular mail with quicker access for the recipient and sender assisting at the same time the receipt and sending of documents. The use of E-mail services can also be beneficial to the company since it facilitates the communication from/to customers as well as to other partners in the business, agents, brokers, ports, authorities and other shipping organisations.

Eritrean shipping companies can benefit from the available technology without going through the whole process of a need to develop programmes by themselves. Until the infrastructure for the introduction and use of Internet and E-mail services is fully developed in Eritrea the companies can use these services by co-ordinating their

activities with partner companies in the advanced countries with easier access and at lower costs.

5.3.2.3. Need for Information Management in Shipping

Shipping is an information industry, there is so much information that the shipping companies have to deal with (Downard, 1987). Information is becoming the way to success and the faster one gets the information the faster that it can respond and is able to acquire a higher market share. For a shipping company, access to information is the key to survival, as it is confronted with a fast pace of change that affects the entire global community. It has become a vital resource along with the other resources of the company, capital, people and materials. Information, on which decisions are based, assists managers to accomplish their operational tasks, control tasks and future planning of the company's targets. However, it has to be sufficient, accurate, up-to-date, of high quality and presented timely. Quality decisions based on quality information lead to successful client relations and management performance. Information management and a data processing system really have become indispensable to the functions of the business world. . According to MASSOP survey results 52% of the total respondents believed that IT has a more significance impact while 41% to a certain extent and the rest 7% not much effect on ship management over the next 5 years (Mottram, 1999*a*).

In shipping there is a growing view that the scale of requirements under the ISM and STCW, in terms of manuals, record keeping, policy documents, instructions and training programmes, make it almost impossible to be applied effectively without some form of IT system, both on board vessels and in the office. Although it is possible to use manual systems, it would be easier to use an active and well established computer based system. If the information management is computer-based, it is more readily used and referred to than manuals

The shipping industry is making major changes with regard to company organisation with the introduction and the implementation of the ISM code. ISM has meant that

shipping companies have to be organised and has led many of them to the adoption of the quality management system. Better organisation of the company means there should be an easy communication and information provision process that would facilitate the implementation of all the procedures as required in the ISM code. It becomes clear then that information technology is the obvious solution that would support the organisation. This technology will enable the companies to have quick access and automates the tasks, and helps in the easy follow up of procedures to support decision making and provision of the necessary services.

Information has, therefore, to be managed in such a way that it will enable the company to have easier access, and quick retrieval with speedy processing. These can be done with the establishment of a Management Information System (MIS) office. The MIS office would support the management in all the decision making processes and organise the overall functions of the data collection, and information distribution to the different departments as users. This would enable the companies to minimise the number of experts required to operate and manage information while at the same time assist in the control and dissemination of information to the respective personnel in a timely fashion, identifying who needs what and when.

The establishment of an MIS office, with well co-ordinated use of information technology, can benefit small shipping companies to minimise the lack of experts by increasing the productivity of the employees in service. This can be achieved by enriching the information system with available decision making know-how that could assist the employees in quantitative decisions automatically, so that many decisions can be made automatically, improving the presentation of data for decision making and making it is easier to analyse and understand using charts, tables and other forms, and providing the decision makers with the valuable accumulated experience and information in time.

Establishing an MIS section in the shipping industry is becoming the call of the day. As the Maersk IT manager said, customers just expect that their service suppliers

should have quick delivery of information at least using the generally accepted procedures and the use of IT in shipping companies is nowadays a norm rather than a marketing advantage. It is, however, good management of the IT that has become a prime differentiation between the success of companies (Bjorn, 1998).

Generally, it can be concluded from the above discussion that the existence of a well organised information management system, equipped with the globally available Internet and e-mail services, would be very beneficial to the Eritrean shipping companies at this early stage of their development, to help them shape the future trends of the companies in the direction of the new development taking place in the shipping community and develop a competitive edge in their service.

5.4. SHIP MANAGEMENT COMPANIES (EXTERNAL OPPORTUNITY OF MANAGERIAL IMPROVEMENT)

Technological advances in shipping, coupled with environmental changes, have imposed new management controls, new budgeting rules, renewed methods of vessels operation, financial requirements etc. on the management of ships and their companies. Hence, the rise in ship management companies providing a variety of services emphasising on the most efficient utilisation of resources in view of the increasing complexities in shipping. The services provided differ on the basis of the agreement signed between the parties involved, from simple victualing to the full operation of the vessels. It includes technical management, commercial management, crew management and other ancillary services. To encompass all these activities ship management is defined as "the professional supply of a single or range of services by a management company separate from the vessel's ownership in support of the primary objectives of the shipowner". (Willingale, 1998, p.13)

Shipping companies need the services of ship management companies for a variety of reasons, among which are:

- professional management and know-how availability, i.e. to gain from the specialist technical and managerial expertise,

- access to qualified crews and personnel, while spreading the burden of training, from the wide variety of the world shipping pool which these companies have been able to create,
- achieve flexibility in management of overheads and improved asset maintenance,
- gain cheaper operation and improved efficiency for economies of scale, leading to the cutting of costs through the improvement of procurement and logistics of goods and services,
- gain wider market access via the proximity of the companies to the market, which companies want to expand into,
- introduce quality management and information technology management systems,
- to have a higher financial borrowing capacity,
- experienced evaluation of the market and future trends of the shipping industry.

The need for the ship management companies is increasing with the increasing and tightening control of ship operations and many shipping companies are looking for more sophisticated management systems to ensure that the high standards of operations are kept consistently throughout the life of their vessels. (Matthews, 1999, p.243).

The advantages of introducing a quality system in shipping, the development of manpower and training, and the benefits of having a properly set-up information management system have been discussed previously. Hence, in this part the opportunities that the ship management companies would present to the Eritrean shipping companies, to benefit from these advantages will be highlighted.

5.4.1. Human Resources and Training:

The delivery of technical, crewing and commercial management services requires the existence of a very highly skilled manpower in the ship management companies. The core capital of a ship management company according to Spruyt are its people, systems, corporate leadership and market image (Spruyt, 1994). One of the prime objectives of ship management companies is the provision of well-trained and experienced crew to a vessel to ensure safe and efficient operation according to international regulations. These companies have developed professional expertise in

the management of ships of different type. The ship management companies have a pool of expertise encompassing not only the technical experience gained from operating ships of every type but also detailed knowledge of international registries, crew availability and manning combinations which, coupled with international operations based around the world, makes them a powerful instrument with an ability to cope with the increasing regulatory environment.

For new shipping companies in developing countries, the rationale for using third party assistance was often a need to import technical and operational know-how and sometimes also competent seafarers, from ship management companies. The strategy was to utilise external management while the company would build up expertise of its own through training (WMU, 1999). Development and training of human resources is essential for the management company to maintain continuity of staff to ensure that all personnel are competent, efficient and professional in handling their duties. In this perspective, most of the ship management companies have established well organised training schemes for both the sea and shore staff believing that it is through continuous education and training that the company would be able to operate profitably and maintain full compliance with all international standards and regulations at all times, and thereby provide a quality service with customer satisfaction at the forefront.

Eritrean shipping companies would not only gain managerial expertise and solve the shortage of skilled manpower, that has become a big challenge in their operational activities, but they would also have a better chance of benefiting from the transfer of know-how from the ship management companies in the working and decision taking procedures they follow for future use to develop the expertise of the company managers as well as benefit from the training courses that these companies provide to their customers. Additionally, with the aim of expansion to the European and Far East markets and the tightening port state control, the demand for skilled crew will increase and, as was discussed in the previous chapter, this can not be fulfilled from local sources due to lack of a seafaring pool of manpower and training institutions. Therefore, the use of ship management companies would be the best solution to

acquire a continuous supply of crew with no obligations attached to the Eritrean companies, since the crews are employees of the ship management companies.

However, the shipping companies have to make sure that provisions for training and transfer of know-how are included in the package of the agreements they make in order to broadly benefit from the use of ship management companies.

5.4.2. Communication and Information Facilities:

With the many changes that are occurring in the shipping industry, ship management companies are trying to introduce and identify better and more efficient methods of maintaining control over the ever increasing communications, internal and external reports, and documentation procedures. Recognising also that companies who have incorporated the latest information technologies in their daily business operations have a competitive edge over all other similar competitors, ship management companies have tried to incorporate them to the best use and provide the customer satisfaction by minimising cost and maximising the data transfer speed. The ship management companies are able to offer highly advanced IT applications, which the individual small shipowners (like the ER.SL) cannot afford to develop to stay with the speed of development in this area. Many of the ship management companies offer information technology services to their trading partners in order to have smooth transfer of information and continuos flow of the reporting systems that would not create delay in decision making as well as create a gap of communication between them.

Most of the ship management companies want to ensure an integration in the improved ability of handling information through the use of the sophisticated systems, which they have developed, with their partners. These systems facilitate the reporting and processing of information for quicker decision making procedures, which intensifies the decision making capacity of their partners. Similarly, the trading partners of the companies can use the ship management companies to access the Internet and E-mail services through a certain agreement and acquire a much wider range of information available from the global shipping community.

In addition to the office information management, reporting and assessment facilities, the ship management companies have cost effective communication technology, which they introduce onto the vessels they manage, to control and follow-up their daily operational activities efficiently.

Generally, the use of the ship management companies can be beneficial in the introduction of information technology. To enhance the communication with their partners the companies introduce various systems that would lead to the development of expertise within the partners, which will further the internal capacity development.

5.4.3. Quality Assurance:

Ship management companies were among the first to recognise the potential benefits of implementing quality assurance systems in the shipping business, with the pressures to improve their image and standing (WMU, 1999). They were in many instances ahead in implementing safety and quality standards than the shipowners and towards this end several of the companies have introduced various quality management systems which include ISO 9002, ISMA code, TQM and other standards developed by classification societies (Willingale, 1998). Most of the ship management companies design quality management systems, training & development of manpower programmes, and develop different information management, assessment and reporting systems for their partners. These include Denholm, Acomarit, Eurasia, VOM group etc. They believe that quality management is one of the factors that they can use as a differentiation tool and have already developed a system that would bring them ahead of their competitors and provide global services, and in similar perspective the shipping companies that create relationships with these companies would benefit from the already established system and knowledge of quality system development.

In general, ship management companies can provide the Eritrean shipping companies with the much required initial shipping management expertise, a system that will allow a gradual evolution and training of local expertise and maritime manpower, and an incentive for private investment in the national shipping companies, with the

introduction of a very highly advanced information technology and quality assurance system.

It would certainly make sense for small shipping companies (like ER.SL) to out-source ship management aspects at this stage with the small number of ships and shortage of the basic human skills. However, it has to be supported by a well- organised system of training and transfer of know-how agreements, in order to lay the foundations for the long term development prospects of the company to achieve indigenous supply of its resources.

It would also allow them to modify their management structures, as has been done in other industries. Management companies can often bring strengths to strengthen the shipowner's business. As technology develops and competitive pressures mount, it is unrealistic for a company - particularly a small company - to imagine that it can excel at every aspect of the business.

CHAPTER SIX

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. CONCLUSION

As was mentioned in chapter two, the Eritrean economy is at a very low stage of development and the transport sector, particularly maritime transport, has a long way to go to establish a sustainable and dependable infrastructure to satisfy the increasing international trade of the country, which is observed in the incoming and outgoing cargo through the two Eritrean ports, Assab and Massawa. This increase in international trade and other objectives, like saving of foreign currency, promotion of exports, creating employment opportunities etc. were some of the basic reasons for the official establishment of a national shipping line under the Ports Authority in 1992.

Due to the international nature and complexity of the shipping business, the performance of a shipping company depends on several factors, both internal and external. The ER.SL was not unique to this situation. Although, the continuous increase in the international trade of the country has created a substantial potential for growth, the company's performance has been moderate due to several problems and challenges. These are presented in the fourth chapter as management and organisation, infrastructure, manpower and training, and institutional problems. To overcome these problems, achieve competitive edge in the trade of the nation, and realise its objectives, the company has to establish an effective management system with a short and long term vision of exploiting the advantage of the location of the ports of Eritrea to serve as regional hubs.

The writer has identified two basic tools or techniques of management that can be applied in tackling the problems and creating an effective management system within

the Eritrean shipping companies. These are strategic management and quality management systems, which the writer believes that they have to be used to supplement each other. First, strategic management has to be used to determine the future direction of the company choosing an organisation strategy from a range of alternatives. Then a quality management system can be used to assist the company in implementing the international and national requirements that are mandatory or codes of practice in the shipping world.

The strategic management approach will be used to identify the future direction that the company has to take in order to achieve the objectives of expansion and becoming one of the leading shipping companies in the region. The process involves the establishment of a mission statement, the formulation of policies, the identification of alternative strategies, the adjustment in the organisational structure, and the development of an evaluation and review system. The identification of alternative strategies will assist in finding the combination of departmental strategies that would be organised into the overall organisational strategy with short and long term objectives or targets, which will determine the future of the company.

Quality management, on the other hand, becomes beneficial from the point of view of implementing the ISM code, which is mandatory and basically concerned with the safe operation and management of ships with regard to safety and environment protection, but focuses on customer satisfaction. Quality management deals with customer satisfaction and the continuous improvement of processes and it has implicitly incorporated all the requirements of the ISM code. Therefore, the implementation of a quality system can lead to effective management of the company while addressing the regulatory requirements at the same time.

The implementation of the quality system depends on the involvement of all the employees, who should be well trained and highly qualified, the full commitment of the top management, and well-organised and documented procedures of all the processes involved in the company. This means that there is a need for personnel

training and introduction of an efficient information management system with the use of advanced information technology.

However, some of the challenges identified in the Eritrean shipping companies are the lack of skilled manpower, inadequate shipping management expertise, lack of training institutions and inadequate infrastructure facilities, which are the basis of success in quality and strategic management, hence, the emphasis on training and information management.

The training of manpower and the introduction of advanced management information systems in the short-run can be achieved through the creation of partnership with the advanced shipping companies in the world. These companies can be the sources of advancement in the managerial sphere for the company. The local unavailability will then be covered by the external sources of the management. It has become a norm for shipping companies to outsource their ship management service to companies who are specialised in such activities and are able to introduce the quality system of management and lead the operation of the vessels, relieving the owning company from the pressure of looking for highly advanced managers locally.

The benefits that can be achieved from the ship management companies, which are presented in the paper, are the transfer of know-how, the availability of training facilities, trained crew, and easy access to advanced information technology.

Generally, the success of the companies will depend in the future on the strategic management of the direction that they are to take and the implementation of the quality system, supported by the introduction of information technology and training through co-operation with the highly advanced ship management companies, which provide a range of activities depending on the scope of agreement they make.

6.2. RECOMMENDATIONS

The recommendations centre on the application of the Strategic management and Quality management as supported by training and information management presented in chapter five. The success of the Eritrean shipping companies will be more dependent on the issues of developing managerial expertise and skill of employees and seafarers. This basically are supported by the use of ship management companies in the short-run.

- The companies must develop a vision in which all managerial activities will centre on using modern management techniques such as strategic management with SWOT analysis to find out the strengths, weaknesses, opportunities and threats, and quality management, which is focused on the satisfaction of internal customers leading to the satisfaction of external customers.
- The management structure of the company should include a Management Information Systems (MIS) office to lay down the foundation for the use of the advanced information technology and reap the fruits that it provides in the minimisation of cost, fast delivery of data, management control and decision support.
- Top management should understand that effective management requires effective managers and employees who are well trained and qualified to fulfil the responsibilities that they are empowered with and can discharge them without any hindrance.
- The companies should make agreements with ship management companies that would assist in the design and implementation of a training programme for employees and seafarers; the implementation of a quality system and the introduction of advanced information technology.
- The Department of Maritime Transport (DMT) has to take the leading responsibility of training and advancing the Eritrean Naval Academy to meet the growing demands of the shipping companies.

- The DMT should develop and implement a human resource development plan to assist in the creation of a maritime manpower pool that would provide readily available advice to the shipping companies.
- The DMT has to introduce competition, in order to create efficiency, in the fields of shipping agency, stevedoring, repair and maintenance through privatisation.
- The DMT has to introduce a policy for protecting the national shipping lines as an infant industry through some kind of preferential port tariffs or allocation of facilities, and cargo preference scheme as related to government cargo form/to the operation areas of the shipping lines.

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