

## FACTORS MILITATING AGAINST THE IMPLEMENTATION OF MARITIME SAFETY CONVENTIONS IN DEVELOPING COUNTRIES. EXPERIENCE FROM NIGERIA.

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### ABSTRACT

This paper focuses on the identification and analysis of some of the problems facing developing countries in implementing the International Conventions relating to Maritime Safety with a view to finding solutions to overcome this situation. Primary data was utilized for this study and a total of 110 questionnaires were administered on randomly selected respondents.

The analysis of the data was done using multiple regressions to analysis the data in order to establish the relationship between the dependent variable and the explanatory variables and to look at the degree at which each of the explanatory variables affect the implementation of the international convention in developing countries

The result of the study reveals that there are problems militating against the implementation of the international conventions. Some of these are inadequate capital, inadequate ship facilities, inadequate trained and experienced personnel, inadequate merchant fleet, inefficient service, uncoordinated maritime policy among others which have implication on the maritime industry in developing world in general and Nigeria inclusive.

*Key words Implementation, international, convention, maritime, safety.*

### Introduction

**In any economy.** shipping plays a very vital role in the overall development process. The provision of an efficient, flexible and adequate shipping system

has been generally recognized as one of the fundamental ingredients for economic, socio-political and strategic development in any society (Badejo, 1985).

In the past, maritime accidents in this part of the world, claimed lives and valuable properties, consequently, maritime nations started to promulgate maritime legislations for the operation, construction and design of ships and more recently, for the protection of the marine environment from pollution from ships. These various national legislatures were given different interpretations by countries and were soon ratified. The sinking of the Great Titanic in 1912 was said to have prompted the maiden edition of the International Convention on Safety of Life at Sea (SOLAS) in 1914 to harmonize the various national maritime legislation on the safety of life and property at sea. It is said that the wrecking of supertankers-Torrey Canyon and Amoca Cadis, prompted the Marine Pollution (MARPOL) 73/78 Convention. The primary aim of MARPOL 73/78 convention is the protection of the marine environment from pollution from ships.

Realizing that human factors play important role in all marine accidents and incidents, the standard of training certification and watch-keeping of 1979 convention was internationally adopted. It was aim to provide a global minimum standard of training for all seafarers. All international conventions by International Labour Organization (ILO) and International Maritime Organization (IMO) could only be implemented and enforced by member states. They have no power to implement and enforce her conventions. Hence all member states must need to have adequate and efficient maritime safety administration. Maritime Safety Administration is the arm of government charged with the responsibility for the policing of the territorial waters for ship's safety and preventing pollution.

Nigeria being a member of numerous international conventions has the delegation to fulfil all the requirements of the various conventions and she can only fulfil these international obligations by establishing a strong administration equipped with trained marine professionals to enforce all requirements to the several International Convention acceded to by the government of Nigeria, which was incorporated into the Nigerian Maritime legislation. Consequently, the Nigerian Maritime Safety Administration was established in 1962 by an Act of Parliament and it was the Maritime Inspectorate Division of the Federal Ministry of Transport.

Moreover, safety is a relative concept, both culturally and economically, and is more actively pursued among advanced societies with plenty of resources than among those struggling with developmental priorities and where life expectancy is marginal. The purpose of international safety regulations is to ensure an adequate safety standard to which all signatory nations will subscribe in equal degree, thereby providing equitable economic footings. The relationship between safety regulations and causality potential is far from precise. Economics, engineering, politics, publicity and philosophy all have a strong influence, safety regulations are restrictive to the designer; expensive to the owner; either bureaucratic or inadequate to the press; and unreasonable one day and insufficient the next to the legislator. The required level of safety varies with one's point of view, with time, from one country to another in accordance with its national priorities.

The variety and complexity of ship design, operation, operating area, voyage length, etc., have necessitated several international conventions related to Maritime safety. Many as defining the highest levels on which agreement was possible at the particular time, but not necessarily the level reasonably achievable within the state of the art can consider a convention. To some nations the convention will be a floor, to others a ceiling. It is against this background that this research work wants to look into the factors that are militating against the implementation of maritime safety conventions in developing countries.

### Conceptual Issues

There have been a lot of efforts geared at documenting facts about the maritime industry. Port development and the activities of the Nigerian Ports have been thoroughly and extensively researched into in the past years but little attention has been paid on maritime safety administration in Nigeria, thereby causing a great dearth of materials in this regard. Safety is a complex subject involving several elements of risk such as collision, explosion, foundering, fire, grounding and occupational hazards. In a nutshell, safety is described according to Otopo (1985) as prevention of disasters at sea and ports which can result in loss of lives and properties. Anyaji (1987) and Fernando (1987) viewed safety as a matter of relative protection from exposure to hazard and maritime safety to the mariner is the integration of constructional, operational and cargo Safety. Constructional safety deals with design, construction and equipment of ships and operational safety involves

human elements. It is a known fact that about 80% (eighty percent) of marine casualties were said to have been caused by human failure (Odiong, 2008). These days, about 50% (fifty percent) of all cargoes transported by sea are classified as dangerous goods and bulk cargoes while the sea has been well noted for its dangers. Cargo safety therefore, deals with the safe stowage and carriage of bulk cargoes such as fertilizers, grain, ore, coal etc as well as safe handling and carriage of dangerous goods and transport of containers.

Akinsoji (1987) noted that no matter how highly trained or sophisticated a ship may be, maritime accidents could occur. Nevertheless, efforts should be geared towards reducing these accidents. Reduction of marine casualties and ensuring a high degree of maritime safety can be found in the ship itself, the cargo, the operation of the ship and the environment in which it operates. A ship must be of sound design with adequate strength and properly constructed for its intended service. The marine personnel must be properly trained to appreciate the dangers involved in the cargo the ship carries and be able to operate shipboard sophisticated machinery effectively and efficiently. Thus, a ship is said to be safe when she can carry cargo safely.

It is a known fact internationally according to Agate (1969) that seafaring is a very dangerous occupation. Due to the international nature of the shipping industry, actions to control it should be at international level rather than individual seafaring country acting unilaterally and without proper coordination. This understanding is now the result of numerous international conventions codes and resolutions on maritime safety and the protection of the marine environment from pollution from ships under the auspices of the International Maritime Organization (IMO) to which Nigeria is a member while the International Labour Organization (ILO) has laid down the conditions for employment of seafarers. These organizations are United Nations specialized agencies, which took over bureau powers from the United Kingdom in 1948. Unfortunately, these organizations have no power to enforce these international maritime treaties. The enforcement of these International Maritime conventions is left to member states/contracting government through municipal laws and subsequently their Maritime Safety Administration.

In Nigeria, this municipal maritime legislation is the Nigeria Merchant Shipping Act (NMSA 1962). The regulatory government body responsible for ensuring Maritime Safety and the protection of the marine environment from pollution from ships is the Government Inspectorate of Shipping hereinafter

referred to, as the Maritime Safety Administration of Nigeria. It is the arm of government, which enforces the Nigerian Merchant Shipping Act 1962 on national and international vessels in Nigeria territorial waters.

About 30 international conventions on maritime safety and pollution prevention from ships; several codes and resolutions were said to have been adopted by the International Maritime Organization. Repu (1991) and Appiah (2000) noted that the requirements of international conventions are binding on the contracting governments. However, the requirements of codes and resolutions are not binding since Nigeria is said to have ratified about fifteen of the thirty conventions adopted.

The implementation and enforcement of the Nigeria Merchant Shipping Act and all IMO conventions ratified by Nigeria according to Akinsoji (1987) is the statutory responsibility of the Honorable Minister of Transport. But, this responsibility has been delegated to the Government Inspector of Shipping (GIS) through the Nigeria Merchant Shipping (Delegation of power) Notice of 1963, Legal Notice 112 of 1963. This implies that the GIS should report to the Honorable Minister of Transport directly.

However the statutory functions of the GIS according to Otobo (1980, 1987 and 1995) were aimed at achieving the goals of the relevant international instruments/conventions on maritime safety and pollution prevention from ships namely safer shipping and cleaner seas in broad terms. These functions include; registration of Nigerian ships, flag state control, port state control, examination certificate of Nigerian seafarer, marine casualty investigation, marine duties-witnessing the engagement and discharge of seafarers for ships including crew welfare and matters relating to occupational health hazards as well as marine search and rescue and coastal services.

### **Methodology**

The method of investigation for this study was essentially both descriptive and analytical in nature and therefore relies heavily on both primary data. The primary data was collected through the administration of questionnaire.

A total of 120 questionnaires were administered to staff and stakeholders in maritime industry but 110 were properly filled and returned. Respondents were classified according to their sex, age bracket, educational

qualifications, positions and departments in the office. Purposive random sampling technique was used.

Multiply regression analysis was adopted in analyzing the data obtained. This was done in order to establish the relationship between inadequate maritime awareness, inadequate political will, uncoordinated maritime policy, inadequate development capital, inadequate right type & size of merchant fleet, inadequate modern management technique, inadequate legal framework, inadequate active presence in international forum, inadequate trained personnel, inadequate ship related facilities, inefficient port services, inefficient maritime administration and implementation of maritime safety conventions in the developing country.

In an attempt to examine the factors militating against the implementation of maritime safety conventions, the following variables were investigated; inadequate maritime awareness, inadequate political will, uncoordinated maritime policy, inadequate development capital, inadequate right type and size of merchant fleet, inadequate modern management technique, inadequate legal framework, inadequate active presence in international forum, inadequate trained personnel, inadequate ship related facilities, inefficient port services, inefficient maritime administration and implementation of maritime safety conventions in the developing country.

The model is specified as:

$$Y = a_0 + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n + e_i$$

$a_0$  = Constant

$X_i \dots \dots X_n$  = Explanatory variable

$b_i \dots \dots b_n$  = parameters to be estimated ( $i= 1, 2, 3, \dots \dots n$ )

$e_i$  = Error term or disturbance term

$Y$  = Dependent variable (Maritime Safety Conventions)

$X_1$  = Inadequate maritime awareness (IMA)

$X_2$  = Inadequate political will (IPW)

$X_3$  = Uncoordinated maritime policy (UMP)

$X_4$  = Inadequate development capital (IDC)

$X_5$  = Inadequate right type and size of merchant fleet (IMF)

- $X_6$  = Inadequate modern management technique (IMT)  
 $X_7$  = Inadequate legal framework (ILF)  
 $X_8$  = Inadequate active presence in international forum (IIF)  
 $X_9$  = Inadequate trained personnel (ITP)  
 $X_{10}$  = Inadequate ship related facilities (ISF)  
 $X_{11}$  = Inefficient port services (IPS)  
 $X_{12}$  = Inefficient maritime administration (IMD)

**Multiple R**                    **0.978**  
**R. Square ( $R^2$ )**            **0.956**  
**Adjusted  $R^2$**                 **0.950**

**Table 1: Analysis of Variance**

Analysis of Variance				
	DF	Sum of Square	Mean Square	F-ratio
Regression	12	106020.51	8835.04	175.36
Residual	97	4886.99	50.38	

Source: Author field survey

## Discussion

Table 1: the multiple R of 0.978 shows the correlation between the dependent variable maritime safety conventions and the independent variables inadequate maritime awareness, inadequate political will, uncoordinated maritime policy, inadequate development capital, inadequate right type and size of merchant fleet, inadequate modern management technique, inadequate legal framework, inadequate active presence in international forum, inadequate trained personnel, inadequate ship related facilities,

inefficient port services, inefficient maritime administration and this yielded a coefficient of multiple regression ( $R^2$ ) of 0.956 accounting for about 95.6% of the variation in maritime safety conventions. The table also shows that the analysis variance for the multiple regression data produced F-ratio of 175.36 which is significant at 0.05.

The results obtained from the statistical analysis of this research indicated that inadequate maritime awareness, inadequate political will, uncoordinated maritime policy, inadequate development capital, inadequate right type and size of merchant fleet, inadequate modern management technique. inadequate legal framework, inadequate active presence in international forum, inadequate trained personnel, inadequate ship related facilities. inefficient port services, inefficient maritime administration made a joint significant contribution of about 95.6% to the problem of implementing the maritime safety conventions in the developing countries. The joint contribution could not have come by chance because the F-ratio value of 175.363 lends credence to the effectiveness of the twelve explanatory variables in causing the implementation problem of the maritime safety convention. Consequently, it could be inferred that 95.6% of the variance in the problems of implementing the maritime safety convention are accounted for by the combination of the twelve independents variables.

**Table 2: Variables in the Equation**

Variables	B	SE $\beta$	Beta	T	Sig. T
constant	-14.854	2.11		-7.03	0.00
IDC	17.361	2.25	0.64	7.71	0.000
IMT	8.138	2.38	0.21	3.43	0.001
IMA	3.95	4.19	0.12	0.94	0.349
ITP	13.16	2.95	0.39	4.46	0.00
ISF	15.46	6.60	0.52	2.35	0.021
IPW	6.20	3.43	0.20	1.81	0.074



IMD	5.34	2.92	0.165	1.83	0.070
IMF	12.08	2.58	0.43	4.68	0.000
IPS	10.23	6.41	0.35	1.60	0.114
IMP	8.77	4.14	0.28	2.12	0.037
ILF	2.63	3.86	0.09	0.68	0.498
IIF	1.67	2.58	0.07	0.65	0.519

Source: Author field survey

The outcome of this analysis in effect corroborated similar findings of Ootobo (1985), Fernando (1987), Appiah (2001) and Odiong (2008). They all agreed that inadequate maritime awareness, inadequate political will, uncoordinated maritime policy, inadequate development capital, inadequate right type and size of merchant fleet and inadequate modern management technique among others are the principal causes of problem of implementing the maritime safety convention in the developing countries.

Furthermore, the outcome of the analysis also shows separate contributions of the twelve explanatory variables and independently made significant contribution to the problem of implementing the maritime safety convention, though at different degree. The most potent contribution happens to be the absence of inadequate capital development ( $\beta = 17.361$ ) closely followed by inadequate ship related facilities ( $\beta = 15.46$ ), inadequate trained personnel take the third position ( $\beta = 13.16$ ) while inadequate type of size merchant fleet followed with ( $\beta = 12.08$ ). The degree of contribution of other variables in ascending others are as follows inefficient port service is ( $\beta = 10.23$ ), uncoordinated maritime policy ( $\beta = 8.77$ ), modern management techniques ( $\beta = 8.14$ ), inadequate political will ( $\beta = 6.20$ ), inefficient maritime administration ( $\beta = 5.34$ ), inadequate maritime awareness ( $\beta = 3.99$ ), inadequate legal frame work ( $\beta = 2.63$ ) with inadequate active presence in international forum having the least contribution.

### Conclusion

This study has confirmed the importance of the maritime safety conventions in the World and the role of International Maritime Organization (IMO) and Office of Government Inspection of Shipping at the local level in the implementation of these conventions both at the international and national levels. The implementation of these conventions has been beset with so many problems which made maritime business to be a very risky one across the globe especially in developing countries. These therefore call for urgent actions from the government, maritime practitioners, stakeholders and the general public.

However, it is the opinion of these researchers that if the maritime safety conventions are well implemented globally and the various ships and ports are improved upon to meet the safety requirements of the International Maritime Organization, the following potential benefits shall accrued to developing countries especially Nigeria. These would further open up the country into economic focus, promote the improvement and modernization of shipping activities, make exchange easier, facilitate dispersal of economic activities, gaining access to various resources and markets, make diffusion of growth induce process easier and promote the social and political cohesion among the people as well as the development of tourism.

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