

# Maritime Policy Fragmentation and Integration Effects in Jamaica

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**Abstract** The Shipping industry plays a huge role in the development of Jamaica's economy. The recent opening of a new lane to the Panama Canal positioned Jamaica with increasing maritime activities to grow economically. Jamaica's maritime sector has suffered from severe problems from the duplication of efforts by various maritime bodies to the inefficient allocation of limited government resources. The authors examined the current maritime policies governed by Acts and regulations of maritime Bodies and regulatory Bodies in Jamaica and provide an analysis with regulatory issues and their effects. A mixed research method was utilized to conduct this research which includes both qualitative and quantitative research. Primary data was collected through surveys from heads of maritime bodies, concerned policy makers and private sector organizations in the shipping industry. Secondary documents including current acts, regulations, guidelines as well as other literatures were used. The findings show that fragmentation of maritime policies, overlap of functions and responsibilities of Bodies mattered, and duplication of efforts were some of the issues brought about by fragmentation. The authors concluded with a policy integration approach and a National Policy Framework recommendation to coherently integrate the fragmented maritime policies.

**Keywords** Maritime Policy, Fragmentation, Policy Integration, Jamaica

## 1. Introduction

**Table 1.** Tourism Arrivals 2012 - 2016

Year	Tourism Arrivals (Cruise)	% Increased on previous Year
2012	1,320,083	17.3%
2013	1,265,268	-4.2%
2014	1,423,797	12.5%
2015	1,815,342	27.5%
2016 (6 Months)	949,883	14.2%

Source: Ministry of Tourism, Jamaica: Annual Travel Statistics [1].

Jamaica, the third largest island in the Caribbean with a population of 2.8 million people, has an area of 4,411 square miles of 11,424 square kilometers. Tourism is considered one of Jamaica's largest earners of foreign exchange with over one million visitors yearly and offering year round tourism activities, forming part of the maritime industry. The Ministry of Tourism reported that Jamaica has received over 2 million visitors to the Island in the first six month of 2016, of which 949,883 were cruise passenger arrivals which was

an increased of 14.2% compared to 2015.

In 2009 Jamaica developed its national developmental plan, "Vision 2030. The design of the goals for the national plan was to strategically support many different sectors within the country. The development of the maritime sector has been included in the plan. The national plan focuses on: Jamaica to have a prosperous economy, to have a healthy natural environment, to have a society that is secure, cohesive and for Jamaicans to be empowered to achieve fullest potential, (Vision 2030, 25).

In 2007 the Panama Canal commenced work on the expansion of a third lane to facilitate and allow the passage of large neo-panamax vessels, a project which completed and opened in June 2016. With the expansion of the Panama Canal, Jamaica should be positioned to increase trading opportunities and activities in its maritime space. With the potential for increasing trading opportunities, there is the potential threat to the maritime sector which needs to be addressed, for example, the regulations issues regarding pollution, coordinating functions and responsibilities to integrate them which will make business process easier for investors. According to the Director General of Maritime Authority of Jamaica, Rear Admiral Peter Brady, April (2014), 93% of Jamaica's trade is ocean borne as in [2] and there is a need for measures to be put in place to facilitate these large panamax vessels when they arrive in the Jamaican waters ensuring that while these large panamax

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Received: Feb. 15, 2021; Accepted: Mar. 19, 2021; Published: Apr. 25, 2021

Published online at <http://journal.sapub.org/logistics>

vessels are in transit within Jamaica or conducting trade activities, investors should find ease with the procedures, for example, to obtain certain permits and inspections carried out. Investors need to know that while these large panamax vessels are passing through Jamaica they are uninterrupted and that they can operate in a regulatory environment that is globally recognized as stated by Brady, 2014 as in [2].

It is of utmost importance to have a clear distinction between marine policy activities and maritime policy activities be clarified?. Marine policy can be interpreted broadly as governmental interventions targeting any activity located in marine areas [3] while maritime policy activities refers to commercial transportation and trade aspects relating to vessels to include the aspect of pollution prevention by vessels and maritime safety and security.

Jamaica, while aiming to position itself for increased maritime trading activities there are a number of its policy activities that will need to have tighter measures of enforcement and vast amount of tighten up of the international standards be carried out in order for potential investors globally to gravitate towards doing business in Jamaica, as demonstrated in the national development plan, *Vision 2030: [4]*, “Jamaica, the place of choice to live, work, raise families and do business”. Similarly strict adherence has to be attended toward the environmental aspects that relates to the marine to bring about a balance between environmental activities and maritime activities.

Currently in Jamaica, each maritime body has its own mandate, some functions and responsibilities are overlapped which results in a sector that suffers a divide, a disconnect among its members which results in a strain on the allocation of limited governmental resources.

The researchers identified a gap between some maritime bodies and their coordinating function and responsibilities which are organizationally and functionally fragmented and may lead to serious impact that can negatively affect economic growth of the industry. The issues of maritime policy fragmentation in Jamaica surround and relate to both policy makers and policy administrators of current maritime policies. Therefore, this research aims at identifying and examining the gaps by demonstrating how these fragmented organizations and policies came about and the various effects brought about by the fragmentation. Moreover, the research tries to recommend an integration strategy to overcome the fragmentation problem by introducing a coherent and comprehensive national integrated maritime policy in Jamaica.

The shipping industry contributes significantly to the growth and development of Jamaica’s economy. This means that Jamaica, as a country should ensure consistent development of the industry and its users to provide for ease of transaction, safety to the environment, protection of the seafarers and by extension proper coordination and management of maritime activities. The Maritime Authority of Jamaica is the statutory body that is charged with the responsibility to administer the Jamaican Ship Registry, to develop the shipping industry in Jamaica, certification of

seafarers, registration of ships and inspection of ships to ascertain their sea worthiness and safety, casualty investigation of incidents among other technical services. These functions are governed by the guidance of the Shipping Act 1998 along with other regulations and conventions guided by the International Maritime Organization (IMO) and other regulation as instructed through the Minister with responsibility for the Maritime Authority of Jamaica. The Ministry of Transport and Mining is the ministry that administers transportation matters within Jamaica and the Maritime Authority of Jamaica (MAJ) is one of the Statutory Bodies that falls within the Ministry of Transport and Mining’s guidance.

Although the Maritime Authority of Jamaica is the body that is charged, through the Shipping Act, with the responsibility of administering the certification of Seafarers, the Port Authority, through its Pilotage Act, is the Maritime Body that trains and issue certificate of competence and licenses to pilots and apprentices as in [5] (Pilotage Act, Section (3) Subsection a and b), who are considered seafarers.

The Port Authority of Jamaica is the owner of the ports in Jamaica. According to the Port Authority Act of 1972, the Port Authority’s duties include, to regulate the use of all port facilities within the ports; to provide and operate port facilities and other services as the Minister with responsibility may require; provide recommendation to the Minister regarding improvement of port facilities; as stated in [6]. Section 7 (A) of the Port Authority Act states that the Port Authority has the power to regulate berths and stations to be occupied by vessels in the port and the removal of vessels from one berth, station or anchorage to another berth, station or anchorage and the time within which each removal shall be effected.

The highlight of this research has identified the various maritime and regulatory bodies and the relevant Acts and policies that guide these Bodies. The purpose of this research aimed at to identify and evaluate some overlapping function and responsibilities of these Bodies after analyzing various Acts.

The researchers have identified various issues brought about by the overlap in responsibilities. The research work aimed at providing suggestions to the Policy Makers and Administrators for the way forward in the industry which relates to effects of these Acts and policies. Therefore the underlining view of the study was to ascertain whether the fragmented policies can be merged to a coherently integrated policy with expectation to bring order to maritime activities, ease of conducting business by investors, and effective allocation of limited governmental funds in other useful areas. The approach used was a road map in achieving the national plan which speaks to “*making Jamaica the place to do business*”. The unit of study for this research included the maritime activities of Ministries Agencies, Departments, and other Regulatory Maritime Bodies along with Private Sector Stakeholders within the maritime industry in Jamaica. The study had a general objective and four specific objectives.

The general objective of this study was to examine the strengths and limitations of the current policies/Acts that exist and govern the maritime industry in Jamaica. The four specific objectives of the study included a) to determine what are some of the fragmented policies/guidelines that govern Maritime Bodies and other entities which have an oversight or regulatory role in the maritime industry in Jamaica; b) **to identify and describe the current Maritime Regulations in Jamaica and their overlap in function and responsibilities**; c) to identify issues brought about by fragmented policies in Maritime industry in Jamaica and suggest mechanisms to mitigate such issues and d) to recommend a Framework for the development of a national (Integrated) Maritime Policy for Jamaica. The four specific objectives were carried out through the research question: **“How Have Maritime Policy Fragmentation Come up and affected the Maritime Industry in Jamaica?”**

These maritime and regulatory Bodies within Jamaica currently operate with their own fragmented mandate which causes overlap in functions and duties, overlap in action plans, duplication of efforts and inefficient distribution of limited resources by the government. Maritime policy fragmentation is an area that needs urgent attention by the government of Jamaica in preparation for the capitalization on the increase in maritime activities within the Maritime sector.

The researchers anticipated that this research will be beneficial to the government of Jamaica. It will assist in greater Public Administration and accountability of the inter-connectedness of Maritime and Regulatory Bodies among government sectors, industries and also investors in maritime industries along side human activities within sea operations demonstrating coherence among maritime decision makers both locally and regionally.

This research analysis of maritime policy fragmentation in Jamaica aimed at the communication with maritime Policy Makers and Administrators of a proposed way forward to develop solution to the issues of maritime policy fragmentation in Jamaica. It is the expectation of the researchers that this research will be implemented by the government of Jamaica through their recommendation to integrate the existing fragmented maritime policies in Jamaica, to coherently amalgamate and convey harmony among the different maritime and regulatory Bodies and ease for investors to do business. This will better position Jamaica's shipping industry to meet international standards and by extension produce economic growth.

To the best of the researchers' knowledge, no research has been conducted in Jamaica to identify and address these fragmented maritime policy issues and as such this research seeks to fill this void.

## 2. Related Work

The literature from academic materials to support the research topic was very limited. The related work of the

research aimed at briefly introducing the government system of Jamaica, explained what fragmentation is; provide comparison of Jamaica, St. Kitts and Nevis, Antigua and Barbuda and Guyana to highlight the effects of integration of fragmented policies within the Caribbean region.

### 2.1. Jamaica System of Government

According to the US library of Congress, the form of government that governs the Island of Jamaica is a system of constitutional monarch with a parliamentary democracy base on a system of representative and responsible government [7] Jamaica gained its independence from Britain in 1962 and the country is guided by its constitution of 1962. The queen is the Head of State for Jamaica and there is a Governor General that is appointed by the Queen on the advice of the Prime Minister through his executive powers, to ceremonially act on her behalf. There are two major political parties in Jamaica: Jamaica Labour Party (JLP) and the Peoples National Party (PNP). Each party when it forms the government is able to serve for a period of five years for a term but can remain the party in power if they are reelected by the people through a voting system. The Prime Minister is the Head of Government. He appoints the Parliament after he is elected as Prime Minister. Parliament is divided into two houses. Firstly, the Senate referred to as upper house and secondly the House of Representative referred to as the lower house. The House of Representative has the ultimate control over the Government finances and no funds can be granted nor taxation levied without the proper approval of the House of Representative, [8]. The Parliament is also considered the Legislative branch of government that focuses on the making and amendment of the laws of the country.

The Executive Branch of Government is the branch that works closely with the Prime Minister (Prime Minister and Cabinet) that carries out the mandate of the country. The Cabinet is the centre of this system of Government to which is responsible to open Government policies and programmes for the general direction of the country.

The Judiciary Branch of Government is the branch of Government where the administration of the legal system is carried out through the different level of court management systems of the country namely: The Privy Council (based in London), Court of Appeal, Supreme Court, Resident Magistrate Court and the Petty session Court.

### 2.2. Definition of Fragmentation

Modern public sector likes to assert that its public policies are coordinated with one another (or matched) and comprehensive (or thorough) enough to deal with all the related problems in an area of common issues as stated by Williams in [9] However when agencies in the same industries operate from different policies, while having same mandate, the industries experiences what is known as fragmentation of polices. Fragmentation is when several organs or groups participate in decision making process

where each having its own mandate to satisfy and each with some measure of weight in the final decision. Fragmentation is also where each group demands a portion of budget, the end result, a high level of expenditure which results to fragmentation [9].

### 2.3. Country Comparison

The current Prime Minister of Jamaica, the Most Honorable Andrew Holness, in an interview with the Bloomberg Television, when asked why Jamaica's growth is lagging behind its Caribbean neighbours, pointed out that it

is due to the need for the Public sector to improve its efficiency, need for better fiscal management, need for Jamaica to be far more investor friendly and a very high debt on hand [10]. A closer look at three (3) of Jamaica's neighbours St. Kitts and Nevis, Antigua and Barbuda and Guyana who are all members of the Caribbean Memorandum of Understanding showed the following information below in Table 2. Comparisons of Jamaica, St. Kitts and Nevis, Antigua & Barbuda and Guyana with National Maritime Policy.

**Table 2.** Caribbean Memorandum of Understanding Member Comparison

Country Comparison	Jamaica	St. Kitts and Nevis	Antigua & Barbuda	Guyana
Member of CMOU since	1996	2010	1996	1996
Population	2.8 Mil	56,183	92,783	770,610
National Oil Spill Plan	Yes: Equipment Housed in four location in the country	No Equipment: Dependent on Neighbouring Member states to help	Yes can be provided by the ministry of Public works	Started Formulation June 2016
National Maritime Policy	NO	YES: Since 2013	YES Nov 2016	YES Since 2004 (Under Review)

Source: The Commonwealth Website [11]

The maritime policy fragmentation in Jamaica is driven by a number of factors. Each Maritime Body along with other Bodies responsible for regulatory duties, operate on their own mandate, the result of which brings duplication of functions and responsibilities. Some maritime bodies are charged with duties and functions that are more suitable conducted by other expert Bodies within the Jamaican maritime sector.

The Port Authority of Jamaica is responsible through the Pilotage Act to train and certify Pilots who are classified as seafarers while the Maritime Authority of Jamaica which is most competent and who is charged with responsibility for certification of all seafarers through its shipping Act also certifies seafarers but exclude Pilots.

International Maritime Organization (IMO) is the international agency of the United Nations that regulates shipping internationally through different conventions. Standards Training Certification and Watchkeeping (STCW) 1995 is an international standard that stipulates that an independent Body provides oversight for training and certification of all seafarers. Seafarers certified under the Shipping Act by Maritime Authority of Jamaica, are first trained at the Caribbean Maritime University (CMU), the training Institution for the seafarers in Jamaica. The Maritime Authority of Jamaica has oversight of the CMU and certifies all seafarers except Pilots which are certified by the Port Authority of Jamaica. Although one could argue segregation of duties, this is viewed as duplication of efforts and inefficient allocation of limited resources. The focal point for the IMO in Jamaica is the Maritime Authority of Jamaica. Jamaica has ratified a number of the IMO standards

that guides the development of maritime activities in the country.

The improved productivity of sea transport requires great efficiency in the use of capital and labour ashore given the fact that there is a political and social dimension involved in the process toward its development, Palmer (1999). There is a process crafting its development. Palmer (1999) has mentioned some current trends that affect the developmental of sea ports as in [12]. One of Palmer (1999) current trends is the trend of the increase in competition across sea ports as in [12]. Jamaica has four major sea ports, Kingston Container Terminal (KCT) which is the largest of the four, Port of Montego Bay, Port of Port Antonio and Falmouth Port which is relatively new and commenced operation in 2011.

Jamaica is positioned to face increase maritime activities from the additional lane to the Panama Canal. It is a matter of urgency for Jamaica's ports to be at international standards in order to gain increased activities at port of call, especially at the cruise ports.

Up to 2007, Jamaica has been awarded the world's leading Cruise Port and this by no means should call for complacency in operations at its ports but rather deep focus on mechanism in place to sustain the leading position within a competitive industry. A number of issues for immediate attention should be addressed as the competition within the industry heightens. In order for Jamaica to maintain the lead position in the world's cruising industry the two main issues of focus to be addressed by the Jamaican Shipping industry includes the issue of bunkering operation and the issue of pollution.

## 2.4. Bunkering Operation

Bunkering may be defined as the supply of fuel, lubricating oil, portable water amongst other to ships. Bunkering usually takes place in a port. Bunker companies are very minimal in Jamaica which poses a problem to supply the increased amount of vessels which will bunker in Jamaica from the new lane opening of the Panama Canal. Currently Jamaica has four bunkering companies that supply fuel to ships that call at its ports. Petrojam Limited, Aegean Bunkering Marine Petroleum Network Inc., Petrotech Marine Petroleum Ltd. and West Indies Petroleum (WIP) are the suppliers of bunkering operation in Jamaica. Petrojam Limited is the national oil company and has an agreement with Aegean Bunkering Marine Petroleum Network Inc to supply bunker to fuel their vessels that do bunkering in Jamaica. Although the Petrojam Ltd. claimed that it supplies fuel that are at international standards as in [13] strict measures needs to be in place to ensure and to guarantee the movement of the fuel from Petrojam Ltd. to bunker suppliers to remain at the highest standard. There are issues that could arise from the supply of substandard quality fuel to vessels. Air pollution is one of the effects of bad fuel served to ships to which results in the pollution of the air while ships operate from the use of such bad bunker.

## 2.5. Pollution

The IMO International Convention on Civil Liability for Bunker Oil Pollution Damage, (2001) [14] has defined bunker oil as any hydrocarbon mineral oil, including lubricating oil used or intended to be used for the operation or propulsion of ships and any residues of such oil. The said IMO Convention on bunker oil pollution went further to define pollution damage as *“loss or damage caused outside the ship by contamination resulting from the escape or discharge of bunker oil from the ship”* as in [14]. The issue of pollution relating an oil spill has to be addressed by the Policy Makers and Administrators in Jamaica. In 2011, pollutant material was discharged in the Kingston Harbour, and after investigation by the National Environmental Planning Agency (NEPA), it was revealed that the pollutant material was discharged by a docked vessel in the Harbour as in [15]. The NEPA revealed in an article that they could not identify the specific vessel to which the pollutant material was discharged [15]. Mechanism should be in place to identify such vessel and its owner in order for sanction to be enforced. It can also be argued that stronger accountability by the Bodies in charge of the port and the Regulatory Bodies should be enhanced in such instances.

Competition is within the maritime industry and the Jamaican Ports should be aligned and reflect international standards in order to maintain that edge above its competitors in the industry. One may argue the fact that the Port Authority of Jamaica and the Maritime Authority of Jamaica in certifying seafarer namely Pilots and other seafarers is a good sign of enough training to certify these Pilots and other Seafarers but this is not only an overlap in

functions but puts a drain on the limited resources available by the country to distribute among its ministries.

Palmer (1999) as in [12] also mentioned that the second trend to affect the development of shipping is the changing work practice to include greater automation. Automation is good on one hand as it sometimes speed up the process of operation but there needs to be some level of human activity to monitor such automation. When one speaks of automation one has to bear in mind technology. Like automation, technology is good but can at times fail and measures will have to be in place to prevent and manage any technological failures when occur. This is where the human aspect will be needed to balance the automation to which Palmer (1999) referred to in [12]. The human side of the automation exercise has to be balance with automation although it is one of the trends in ports nowadays. Palmer (1999) [12] referred to full automation of ports. However this ideology by Palmer (1999) [12] I would not fully support as his ideology could cause serious negative effects which could be very much detrimental to the industry for example, the loss of jobs. Regardless of automation there will be need for the physical operation by human which is having employees.

The Ministry of Labour carries out inspection relating to living and working condition on board of vessels through its signatory obligations to the International Labour Organization (ILO) while the same inspection is carried out by Port State Control whom are considered more capable to carry out these inspections as they are technically trained in that area as stipulated by the Caribbean Memorandum of Understanding, (CMOU).

Caribbean Memorandum of Understanding (CMOU) in conducting Post State Control (PSC) inspection in section 3 (1) states that *“...Administration will carry out inspection on board to satisfy themselves that the crew, and the overall condition on the ship, including engine room and accommodation as well as hygienic conditions therein, meets generally accepted international rules and standards....”*

According to Couper (2000) [16], Port State Control (PSC), where it exists has detained vessels with safety defects and the same PSC, have not been often extended to crews which are expose to unfair contracts, low conditions, low wages and abandonment in foreign ports as in [65]. However this is not the case as there is now organization such as the UN agency: International Labour Organization (ILO) that addresses such issues as living conditions and accommodation of crew members and can act on the behalf of the seafarer. In Jamaica PSC addresses this concern in their regular PSC inspections however there should be no need for the Ministry of Labour conducting these inspections as their personnel are not technically trained to conduct such inspections. This is a sign of over use of budgetary resources for example to pay two (2) inspectors to conduct the same inspection.

It can be argued that Jamaica's maritime affairs have been in a state of division with the policies that govern each maritime sector. Each sector operates on their own mandate. Although each sector's mandate is related to their objectives,

there is overlap in functions, duplication of efforts which depletes the budget. The budget is not only depleted through the duplication of efforts and the inefficient allocation of the limited resources but contributes to frustration to the users of these policies.

The maritime sector which is operated by several fragmented policies calls for a more coordinated sector where all the fragmented policies merged together to form an integrated national policy for the maritime sector in order to coherently coordinate activities, coordinate each maritime sector's mandate, pooling resources for maritime Ministries, Agencies, Department and other Regulatory Bodies which will result to efficient allocation of limited resources and better national coordination of the maritime policy users.

Before the whole process of any integration can take place there should be several measures to be taken into consideration. The first step will be to ensure that the goals of the integrated national maritime policy for Jamaica is aligned with the national development plan of Jamaica, "Vision 2030" and further aligned with the transport sector plan of the said Vision 2030 maritime sector plan which was drafted for the period 2009-2030. The Goal of the Maritime Sector Plan 2009-2030: "A Globally Competitive and Diversified Maritime Transport Sub-sector [4]".

The second consideration is the efficient use of the ocean and coordinating these users coupled with the support of the government for example the political context. When these are in place there will be better grounds on which to achieve formulating and implementing an integrated national maritime policy to govern all the smaller policies that relates to the maritime sector.

The political context namely political wield is observed as one of the hindrance of implementation of policies in Jamaica. The political wield is high in Jamaica and whilst one political party in power drafts a policy, it is observed that another political party when assumes the leadership of Government will not impalement drafted policies of previous government.. This is seen as a hidden control/reason identified that influenced the outcome of non-implementation of policies in Jamaica. Hedrick, Smith (as cited in Zhang, 2013) as In [17] describes political fragmentation in the context that fragmentation often leaves politicians wallowing in deadlock because the government lacks the cohesion to form the durable coalition to resolve the nation's most demanding problems as in [17]. For integration process in Jamaica a strong coalition and negotiation amongst the Maritime Bodies will have to be at forefront to the smooth implementation of integration of fragmented policies. The concept of coalition will be further explained in this research paper.

When there is better management and coordination of the maritime Bodies and the related activities involved within the sector there will be greater results in economic growth. The idea of the integrated maritime policy will better able to lead to sustainable economic growth.

In support of integration efforts by Jamaica, the country

will be better positioned to attract more investors, and more vessels to call at its ports. A guaranteed business process at international standards to give investors comfort in trusting that they can conduct their business without frustration, their vessels will be safe and free from disturbance in the Jamaican waters should be promoted.

The Cruise ship industry in Jamaica has the potential to increase as more vessels are anticipated to past through Jamaican waters. Panamax vessels that will past through the Jamaican waters and having operated under the Jamaican regulations will increase the Jamaican fleet registry. According to Former Senator Sandra Falconer as in [18], the Cabinet of Jamaica has approved the introduction of a cruising permit fee under the Shipping Act 1998, to be paid by visiting foreign registered yachts, (Jamaica Information Service, 2012), [18]. The Cabinet in addition, has approved the removal of the custom duty, custom user fee, environment levy and general consumption tax that was previously charged on these Jamaican registered yachts, replaced by the said cruising permit fee, Falcnor (2012), [18].

In other countries such as Singapore, their national maritime policy is their tool that guides the development of their shipping industry and which includes the activities for the marine, ports services and facilities functions effectively in their coordination and management of efforts in the industry. Jamaica too can experience and develop its economy and the maritime industry if there is an implementation of an integrated national maritime policy which will, like other countries such as Singapore coordinates and bring all the players in the sector under one broad "umbrella" to experience more cohesiveness and coordination of efforts which will in the long run for Jamaica would brings success to the industry.

### 3. Methodology

The nature of this research does not stand on or represent any one form of theoretical framework. The researchers in conducting the research has drawn a conclusion that due to the nature of the fragmentation issues that affects Jamaica's maritime sector, there is no one specific theoretical framework that could be assigned to assist in fixing Jamaica's Maritime sector's problems. There seems to be no "one frame fit all" framework problems but rather a combination of various theoretical frameworks was best to customize and represent a road map towards an integration process of maritime policy fragmentation. The research study looked at two scholarly frameworks namely, the Advocacy Coalition Framework (ACF) and the Institutional Analysis and Developmental Framework (IADF) combined to represent the recommended framework to guide integrating Jamaica's fragmented maritime policies.

The ACF is a silhouette theoretical framework formulated by the great scholar Sabatier and Jenkins-Smith in 1999. The ACF is the policymaking framework that was developed to

deal with intense public policy problems, (Sabatier and Jenkins-Smith, 1988, 1993, 1999) as in [19]. In the case of Jamaica there is an intense problem with implementation of drafted policies. It would appear that a causal relationship that could be linked to such problem is the issues of political will power as explained previously. One political party in power will draft a policy and when there is another political party in power there is no continuation of the efforts of a previous government in power regarding previously drafted policies. It is observed that new policies would be drafted ignoring the previous one. The result of which Jamaica ended up with several drafted policies that never actually get fully implemented. A typical example that was found during this research is the rationalization of the public sector that was conducted by one political party in May 2011, as in [20]. A change of government came into effect January 2012 and implementation of the rationalization plan halted. It was recommended in the said rationalization plan to merge the Airport Authority with the Port Authority of Jamaica which is still not yet implemented. The ACF framework, widely used in the USA, Canada and Europe in policies relating to environmental issues namely pollution, marine matters, which is widely accepted because of the different players that are involved in the policy making process. The framework takes into consideration the multiple players from levels of government, (Sabatier and Jenkins-Smith, 1999) as in [19]. The fragmented maritime policies of Jamaica would fit in this framework especially the fact that there are many

maritime entities involve and skills needed to carry out the process of merging such fragmented policies. Advocacy and a certain amount of negotiation among the Bodies will be the key aspect for solving the policy problems. The ACF on its own would not be able to bring solution to Jamaica's fragmented maritime policy issue. However, some areas of the ACF were very relevant to Jamaica along with a mixture of aspect of other framework to solve the policy issues.

The second theoretical framework that was partially mixed with the ACF to be recommended for the fragmented maritime policy issue in Jamaica is the Institutional Analysis Developmental Framework (IADF). The IADF was established by Elinor Ostrom in 2009. This is a framework that focuses on several hierarchies of institutions. It identifies major types of structural variables that are present in all the institutional arrangements and find where the difference lies in one institutional arrangement to another then the problem is identified and addressed, (Ostrom, 2009) as in [21] Jamaica's maritime policies could see a benefit from some aspects of the IADF framework regarding institutions coupled with the ACF.

The structure of the author's framework conceptually looked widely at Jamaica's Maritime Sector and analyzed the organizations firstly responsibly for policy making and administration to include current ministers, past ministers of maritime ministries, heads of regulatory Bodies, and stakeholders including the private sector Bodies directly involved in the maritime sector.

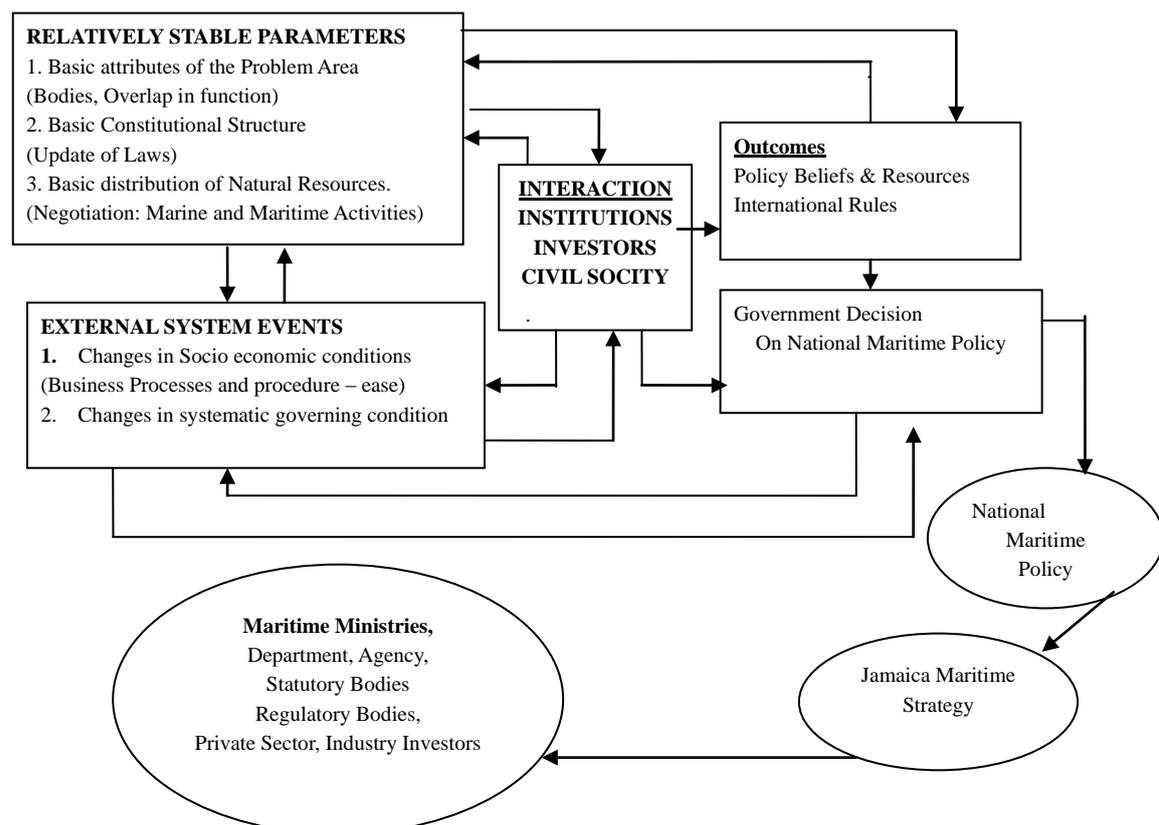


Figure 1. Author's ACF & IAD Framework of Integrated National Maritime Policy

### 3.1. Framework Explanation

The customized theoretical framework of this study explains that in order to coordinate and achieve a solution to merging the fragmented maritime policies that exists in Jamaica relatively stable parameters has to be identified. The basic attribute of the problem areas to include overlap in function by Bodies; basic constitutional structure to include laws update; basic distribution of natural resources namely the negotiations and balance between maritime and marine activities must be identified.

An external system of events also should be adopted, which involves external institutions that includes the investors, civil society and other stakeholders that will work; a change in socio economic conditions for example better ways of tackling business processes and procedures enabling the ease with which to conduct business in Jamaica. An extensive and major interaction between both the institutions involved should occur parallel to achieve the negotiations process in designing the actual new recommended integrated policy. This will be a special technique both the Policy Makers, Policy Administrators, investors and other stakeholders (users of the policy) will form coalition in collaboration for the merging and implementation of the new integrated national maritime policy. The outcomes from interactions will be used to determine the beliefs and resources which will include standards for the policy and international rules. These are tools or instruments for government to assist in decision making for the national maritime policy to be developed. From the national policy the national strategy for the maritime activities will flow, which will govern all stakeholders in the sector. All stakeholders will be governed by this integrated, coherent, and comprehensive national maritime policy. This will foster clarity amongst the users of the policy where process and procedures of doing business will be more user-friendly and by extension fosters good business environment to do business to the investors; harmonization institution functions and responsibilities to all players in the sector especially when doing business.

### 3.2. Characteristics and Types of Mixed-Method Research

The research followed a mixed method approach to the research. A qualitative approach was used to describe the various overlaps, described the laws and how they came up. The research also followed a quantitative approach that was used as part of the process to evaluate and measure the effects of integration and the degree to which integration should be implemented. The characteristics of this research was analytical in nature as it critically identified and statistically analyzed the functions and responsibilities laid out in each Act and other legislative and regulatory documents that governs all maritime and regulatory Bodies responsible for maritime activities in the maritime industry within Jamaica and integration effects. The research was based on a pragmatism knowledge claim. According to

Creswell, (2004) as in [22], a pragmatism knowledge claim is a research design approach with an alternative knowledge claim position to which the researcher takes that which involves the centered-problem, the consequences of actions, pluralistic approach and a real-world practice orientation [22]. The researchers acted as pragmatists in the research process to highlight what is going on, the problems brought about and the effects of such issues in the maritime industry within Jamaica regarding the fragmented policies and other legislation that governs the maritime and Regulatory Bodies and the consequences of integrating the fragmented maritime policies.

### 3.3. Data Collection Procedures

#### 3.3.1. Sample Selection

Sample Selection was done by the researchers through selection of all the ministries and regulatory Bodies with responsibilities for maritime activities in Jamaica along with other stakeholders in the industry namely private sector organizations and private investors within the maritime industries to carry out the research.

The issue of fragmentation is a national issue and for the purpose of objectivity in the study and to eliminate any form of implied partisan, the researchers selected current Ministers, Past Ministers, Permanent Secretaries, other Policymakers, Heads of Maritime Regulatory Bodies, and Private Sector Organizations to participate in the questionnaire exercise.

The questionnaires were designed and drafted in *Google Forms*: a form that is issued through the internet to the participants which provided a summary of the respondents' results. The researchers issued a total of Forty One (41) questionnaires to respondents identified as Policymakers and Administrators of which Twenty Six (26) participants responded. These responses were all valid to be analyzed.

The researchers also issued an amount of Thirty (30) surveys to Private Sector maritime industry stakeholders to include owners of businesses, shipping companies union within the sector to test the level of difficulties they faced with the process and procedures when conducting their maritime affairs. These surveys were also drafted using *Google Forms* and emailed through the internet to companies and other stakeholders. Twenty-five (25) of the Thirty (30) surveys were received from the respondents all of which were valid to be analyzed. The sample size of thirty (30) for the private organizations survey should be viewed as an appropriate sample size. Though it may be viewed small from the outset, in fact it was appropriate as one selected organization (union) represented the majority of the shipping industry companies and workers. A Google Groups email list was created to send reminder email to the participants reminding them to participate in the questionnaires and surveys.

The data from the research was collected by using both primary and secondary data source. The researchers reviewed local, international and regional legislation (Acts

and standards). Journals and books were also used to collect data.

### 3.4. Questionnaire Design

The researchers administered both open and closed ended questions in the questionnaires as part of the primary data collection with the aim to collect respondents' view on the maritime fragmented policies, integration effects and their views of implementing a coherent, integrated national maritime policy in Jamaica. The researchers designed opened-ended questions and administered to government Policymakers and Administrators along with the Private Sector Companies, to gather data on their views of the fragmented policies, views on integration and views on the business process of transactions. Nonetheless, although a choice of the questionnaire over the interview for this study was used, it should be noted that there is no negative impact on the result of the outcome of the research. The questionnaire was the most suitable tool for this research.

Closed-ended questions were also administered to both Policymakers and Private Sector Bodies to test their view on matters relating to the topic. The secondary data examined from documented laws (ACTS), books, journals, government website and International Bodies were used to formulate the closed-ended questions.

The types of questions developed for both the questionnaires and survey were a mixture of dichotomous questions (Yes and No questions), nominal questions (single and multiple choice questions), scale questions (likert scale), matrix and contingency questions. The Policymakers and Administrators' questionnaire consisted of a total of twenty four (24) questions. The survey administered to the Private Sector Bodies and other Stakeholders in the industry consisted of Twenty-Seven (27) questions.

The questions were strategically grouped in the questionnaires. The Policymakers and Administrators questionnaires were arranged in five (5) different groupings. An example on policy fragmentation existence was asked to measure whether or not the current policies in existence were actually fragmented. An example of overlap provision question was asked to measure whether or not there were overlaps in functions and responsibilities in the maritime sector.

An example of issues brought about by fragmented policy was asked to measure the issue of pollution. An example of mitigation for issues question was asked to measure the possible mitigation to the issues brought about by fragmentation. A question on how to push integration was asked to measure the approach by government to push integration.

The questions for the survey were also strategically drafted and placed in five (5) grouping that were related to the research topic and also measurable. Questions on the type of business and transaction were asked to measure their business and how long they are in the maritime industry respectively. A question on registration and license process was asked to measure how frustrating respondents found the

current licensing process.

A question on Investors/Stakeholders satisfaction was asked to measure the level of satisfaction experienced by respondents. Question on overlapping functions was asked to measure Investor/Stakeholders' knowledge on the overlap. Operational quality and improvement question was asked to measure how improvement could be addressed by Maritime Bodies within Jamaica.

### 3.5. Data Analysis Strategy and Procedure

All the data collected from respondents by the researchers were carefully reviewed. Data were reviewed and carefully reported in report form. The closed-ended questions from both the survey and questionnaires collected from respondents were recorded in excel format after which the results were demonstrated graphically, in charts and tables.

### 3.6. Ethical Issues

The researchers assured individuals, through an introductory letter, who participated in questionnaire and survey process that the information collected will be kept in the highest level of privacy and anonymity. The participants were not coerced to submit their names as part of the process and job rank was asked for instead of job position to conceal the identity of respondents. Participants were also assured that the information provided would be kept confidential, would solely be used for the purpose of this research and will not be divulged to any other person or Body unless permission is given by a participant.

The researchers assured individuals participated in the data collection that they will not be excessively intrusive as in [23], for example intruding on the individual time or personal information about their life or political party affiliation.

## 4. Results

The descriptive statistics of the Policymakers and Administrators surveyed in the Governmental Maritime Bodies inclusive of the private Sector Organization groups and investors were namely, Maritime Authority of Jamaica (MAJ), Port Authority of Jamaica (PAJ), Jamaica Customs Department, Caribbean Memorandum of Understanding Secretariat (CMOU), Jamaica Employers Federation, National Land Agency, Tourism Product Development Company (TPDCo), The Jamaica Defence Force: Coast Guard and The Ministry of Economic, Growth and Job Creation.

The respondents in the government and private sector group category of respondents were all at the highest level position within the Maritime Bodies who has the highest level years of service in the maritime industry. This suggests that the quality of data received were credible and influenced the results in a positive manner and by extension makes it valid to be replicated.

Responses received from respondents regarding whether

or not the state of the maritime sector needs a reform showed that 84.6% of respondents agreed that the maritime sector of Jamaica needs an immediate reform.

The MAJ is the body mandated with the development of shipping in Jamaica and has agreed, there is a lack of the implementation of certain fundamental international standards in place that will facilitate safety at sea. The Researchers supports the view that Shipping do improves yearly with the new development of technology each year and as such the Researchers' ACF and IADF will become appropriate as it seeks to involve the International Maritime Organization (IMO) in the lead up and on a long term basis standard in the process and also within the scope of utilizing the framework to integrate the fragmented policy into a the national maritime strategy which will incorporate signatories to new standards as the industry improves.

The Port Authority of Jamaica (PAJ) demonstrated that there is in fact need for immediate reform because the laws that govern the sector are out dated and needs revision. This will allow the sector to be responsive to new developments in shipping. The Jamaica Employers Federation the trade union recognized nationally and internationally to represent the employers in maritime Bodies within Jamaica, demonstrated from its response that globalization and international trade impacts the growing maritime activities and environmental issues and hence the immediate need for international standards which the country should ratify, comply and adopt. The National Council on Ocean and Coastal Zone Management (NCOCZM), a Ministry of Foreign Affairs and Foreign Trade entity is the coordinating Body for marine policy interest in Jamaica expressed that there is a disconnect among the sector and there are times when their Body is not informed of other single handed activities when they are carried out which suggests a disconnect.

The respondents who participated in the question that was designed to ascertain whether or not the maritime policies that govern the sector were fragmented showed that 42.3% agreed and was supported by the MAJ and the Jamaica Employers Federation.

Government Policies are what is used as a roadmap for each Body in the maritime sector to guide their operation and to carry out their mandate. The question designed to collect data to support the main research question on finding out how has the fragmentation come up showed that 65.4% of the respondents believed that the fragmentation has come up because of an aggregate of three main reasons namely: each Body has their own mandate to which they operates, current maritime policies are not working well and there is an insufficient allocation of government funds to each body. If we aggregate the total response to come up with the reason on how fragmentation comes up it can be safe to ascertain that from the results, 80.9% believed it is due to each Body operating on their own mandate, and a 19.2% responded that those policies are not working well coupled with the insufficient resource allocation problems.

Fragmented policies have the potential to impact a country's economic growth. The question which was

designed to collect data from the Heads of government regulated maritime Bodies to test the level of agreement on the statement that fragmented policies may negatively impact economic growth showed that 92.3% of the respondents believed that negative impacts on economic growth have or may have occur when the policies of the maritime industry/sector are fragmented. The question relating to evaluation of economic growth and overlap provision in responsibilities was designed to determine the reason for a negative impact of the fragmented maritime policies in Jamaica. 4.5, 92.3% of respondents have agreed that there is a negative impact on economic growth from the fragmented policies that exists in the Jamaica maritime sector. The Maritime Authority of Jamaica expressed that in the thrust for the development of Jamaica as a global logistics hub, industry is unsure of the responsible entity for driving the components of the potential logistics hub, fragmented policies are not centralized, transshipment requires fast efficient just in time service, investors may be frustrated and instead move away from Jamaica all of which may contribute to stagnant growth and non attraction of investors. The Jamaica Employment Federation expressed that with each entity in the same industry using fragmented policies, it may lead to competition amongst sector which results in the greater good being deferred. The Jamaica Custom expressed that fragmented policies cause's confusion to investors and also Policy Administrators and in the long run foreign investors may take their business elsewhere where it is easier to transact business. The fragmented policies have lead to a number of negative issues which is viewed as detrimental to the Sector's potential to grow as an economy. The question on fragmented issues was designed to support the objective which is to identify issues brought about by fragmented policies. Responses showed a 96.2% of the respondents identified duplication of efforts as one of the issue brought about by fragmented maritime policies in Jamaica. The other issue brought about by fragmented policies is the need for the old legislation that governs maritime Bodies to be reviewed.

The lack of compliance among maritime Bodies was also a contributing factor for issue brought about by fragmented policies. Another issue that came out of the findings from the Policymakers and Administrators respondents in the research was the issue of frustration with the bureaucratic process experienced by investors as a result of fragmented maritime policies that govern the sector. 96.2% of the results collected showed that respondents agreed that investors are frustrated with the fragmented maritime policies.

On the issue of integration and as a measure to address the issue of fragmentation of the maritime policies in Jamaica, respondents when asked whether they believe integration of the fragmented policies would minimize the issues brought about by fragmentation of policies; the MAJ expressed that an integrated policy would serve well to mitigate the overlapping of regulatory responsibilities, provide a streamline of the fragmented policies to achieve national objectives of maritime development, create certainty in the

industry and foster a spirit of collaboration among entities within the industry rather than one that demonstrates a competitive force among each other. The Jamaica Defence Force Coast Guard has expressed that benefits would be saving resources, improving enforcement and administration and remove conflicting policies while the Jamaica Customs Department responded that investments especially businesses from overseas in maritime activities would be increased.

The question that was designed to gather data from the respondents regarding the benefits that can be achieved from merging the fragmented policies resulted with the PAJ categorically expressed that they do not support merging the fragmented policies; On the other hand, the Economic, Growth and Job Creation ministry expressed that the benefit that can be achieved from merging the fragmented policies are improved economic growth, available funds for other sector, ease of doing business which leads to increased investment especially foreign investments and elimination of the fragmented policies.

The respondents that participated in the governmental questionnaire have expressed that there is an urgent need for an integration of fragmented policies into one national integrated maritime policy where all Bodies will be governed by businesses, transactions will proceed with ease, duplication removed, and revision of current laws would better position Jamaica in the competitive market. The Policymakers and Administrators who participated in the process expressed that there is urgency for this new development and this was demonstrated with 76.9% of respondents agreed to an immediate legislative process to commence with an integration of the fragmented maritime policies into an integrated national maritime policy.

The set of survey relating to assessment of investors frustration gathered data from the business owners in the maritime industry on their level of satisfaction conducting maritime transactions within Jamaica. A total of twenty five responses were received from respondents on the question designed to support the research objective that seeks to highlight the issues brought about by fragmented policies and mitigation showed that 42.3% moderately agrees that doing business with the Maritime Bodies in Jamaica is frustrating while another 30.8% strongly agrees to frustration. There were a 76.9% of the respondents who expressed there is confusion as to the correct Agency to conduct their maritime transactions.

Findings revealed from the various Acts examined by the researchers revealed overlapping functions among Maritime Bodies, to include:

#### **4.1. Cruising Permits**

The Maritime Authority of Jamaica is the responsible Body to grant cruising permit to foreign registered yachts that operates in the Jamaican waters. The Jamaica Custom Department is also responsible to grant cruising permits to these same foreign registered yachts that operate in the Jamaican water.

#### **4.2. Inspection of Living Conditions on Board**

The Ministry of Labour carries out inspection relating to living and working condition on board of vessels through its signatory obligations to the International Labour Organization (ILO) while the same inspection is carried out by Port State Control who is technically trained to carry out these inspections.

#### **4.3. License of Boats**

The MAJ through its Shipping Act has the function to register ships, according to Section 8 (1a) of the Shipping Act as in [24] while the Fishery Department through the Fishing Industry Act, Section (8) has the function to register fishing boats as in [25].

#### **4.4. Bunkering**

The Harbour Master and PAJ controls bunkering in Jamaica through the PAJ Act and the Harbours Act. While MAJ administer the foreign flagged ships in Jamaica that are engage in bunkering activities through the Shipping Act and the Local trade regulation 2003, Section 4 (a) as in [24].

#### **4.5. Casualty Investigations**

Section 21 of the Pilotage Act [5] authorizes the PAJ to conducts marine casualty investigations of activities occurring in the Pilotage area for small vessels such as tug, dredgers and other vessels involve in trading activities within Jamaica.

Chapter One: Part C - Regulations 21 (Casualties) of the Safety of Life at Sea (SOLAS) [26] convention requires member/contracting Governments of IMO to conduct investigations of any casualty occurring to any of its ships and where each contracting Government is also required to submit such reports of casualty investigations to the IMO. MAJ as a requirement by the IMO is required to conduct investigations of marine casualties and report to the IMO.

#### **4.6. Removal of Wrecks**

The MAJ is responsible for the removal of wrecks outside the Harbour through section 332 (1) of the shipping Act [24], "Where any vessel is wrecked, stranded or in distress on the shores in Jamaica, the receiver for the area in which the vessel is situated shall upon becoming aware of the incident go to such place and take command.

PAJ is responsible for removal of wrecks within the Harbour through the Harbours Act, section 15 as in [27]. This suggests the result of duplication of which the result may bring uncertainty to the public and other stakeholders regarding the removal of wrecks.

#### **4.7. Pollution Prevention**

One of the National Environmental and Planning Agency's (NEPA's) core functions is the prevention, control, investigation and management of pollution, as in [28] while the Quarantine Authority of Jamaica also has the function of regulations carried out in the ports relating to the danger to

public health from ships, section 7 (1) (a). The Office of Disaster Prevention and Emergency Management (ODPEM) is also task with the responsibility for the overall coordination of the national oil spill plan as in [29]. These are also functions that are viewed by the researchers as overlapping functions.

## 5. Conclusions

This research was formulated on a scope that identified fragmented maritime policies in Jamaica, how they come up and affected the maritime industry in Jamaica. Identification of the various Maritime Bodies was conducted. Policies that govern each maritime Body were looked at mainly their functions and responsibilities with the aim to identify overlap in functions, issues brought about by the overlap and fragmentation.

Based on the data collected from Policymakers and Administrators and Investors along with the laws examined, it has confirmed that the maritime policies are indeed fragmented. Having a sector with fragmented policies not only lacks the potential for increased growth but leads to confusion to its users and this was evident from the responses received from both the Policymakers and Administrators and the investors when they transact businesses. Jamaica should hasten to address the fragmented policy issues as indicated by a number of respondents. Immediate attentions should be brought to the forefront by the Policymakers and Administrators to address the issues of updating the laws that govern the fragmented Bodies within the maritime sector in Jamaica.

In order to achieve the vision 2030 of the national plan on economic growth, it is imperative for the government to capitalize on the increase of ships passing through its waters as a result of the reconstruction of the Panama Canal. The challenge is how the issue will become a priority agenda item to be looked at by the policy makers.

There is a considerable amount of overlap in the functions and responsibilities of Maritime Bodies and other Regulatory Bodies that govern the sector. Also each Body operates on its own mandate which not only puts a strain on the limited resources available to the government to be distributed across sectors but breeds duplication of efforts. Like Jamaica's neighboring islands in the Caribbean, such as St. Kitts and Nevis, Antigua and Barbuda and Guyana who follows good public policy management practices and operates under a national maritime policy, Jamaica should hasten to integrate its fragmented policies. St. Kitts and Nevis became member of the region of the Caribbean Memorandum of Understanding (CMOU) since 2010, and has achieved integrating their maritime policies into a national maritime policy since 2013. Guyana, Antigua and Barbuda and Jamaica became members of the CMOU since the inception of the Caribbean Memorandum of Understanding in 1996. However, both Guyana and Antigua and Barbuda has achieved integrating their fragmented

policies into a national maritime policy. Jamaica lags behind with the development of an integrated national maritime policy which calls for urgency to develop a national maritime policy. In moving toward having a national maritime policy Jamaica would better position itself to experience increased maritime activities which will lead to economic growth that can be sustained if proper organization of the sectors' polices are streamlined.

In concluding with final comments on the research questions, it can be concluded from the research that maritime policy fragmentation has come up from a number of causes. One of the main causes lies within the different Bodies that operate on different mandates causing an overlap in function and duties. Another cause of the existence of fragmentation can be seen as a hidden factor which can be viewed as the political wield of political party in power. Each party in power neglects previously drafted policies and develop new policies and projects which results in several action plans not being implemented.

To a large extent, from this research, the Policymakers and Administrators agrees that the fragmented policies should be coherently integrated into one national maritime policy that would bring all the maritime polices under one "umbrella". The Policymakers and Administrators also agrees that the approach should be a bottom up model approach which would foster collaboration with all stakeholders in the industry in the overall design of the national maritime policy. It should be further emphasized that the researchers' customized ACF and IADF model would be best suitable as the recommended framework which was an objective of the research.

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