Understanding The Impact of the Maritime Shipping Industry to a Sustainable Economic Development

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Abstract:

Majority of the Maritime teachers belongs to the age bracket of forty-one years old and above. Forty-five percent among them have units in the Masteral program. Around seventy to eighty percent of the Maritime teachers strongly agree that shipping has been an important human activity throughout history, particularly where prosperity depended primarily on international and interregional trade; other important marine transportation activities include passenger transportation (ferries and cruise ships), national defense (Naval vessels), fishing and resource extraction, and navigational service (vessel-assist tugs, harbor maintenance vessels, etc.); and that the Maritime transport is the backbone of the global trade and the global economy. Seventy-three percent agree that the Maritime shipping is considered an environmentally friendly mode of transport. Sixty-four percent among the respondents agree that the importance of shipping in supporting and sustaining today’s global society makes it indispensable to the world and to meeting the challenge of the 2030 Agenda for Sustainable Development. Another sixty-four percent agree that Globalization identified labor markets overseas that encouraged transport of semi-raw materials and intermediate products where manufacturing costs were lower and such that the fuel types used in marine transportation are different from most transportation fuels. Hence, faculty trainings and orientations stretching on the impact of the Maritime industry to a sustainable economic development need to be conducted, both internally and externally from the school campus. The Maritime curriculum indeed has to be revitalized and reinvigorated to suffice the pressing demands of the Maritime industry for economic globalization.

Keywords: Understanding, impact, Maritime industry, sustainable, economic development.

Introduction

Global economic integration is a key factor behind the rising significance of international trade. Historically, trade was prevalent but set up under constraining conditions in terms of the technical means to support it. Trading over long distances remained slow and expensive, limiting its scale and scope. By the early 20th century, transport technologies such as the steamship became ubiquitous and efficient enough to support a complex international trade system. The globalization of production is a driver for the globalization of trade as they are interrelated. The scale, volume, and efficiency of international trade have continued to improve. The liberalization of global trade is supported by the continuing evolution of the World Trade
Organization (WTO) and initiatives by organizations such as UNCTAD, United Nations Conference on Trade and Development or the World Bank. As international trade depends on the provision of distribution and transactional services, the demand for these services has increased substantially, leading to the growth of carriers, cargo owners, terminal operators, third-party logistics service providers (3PL), freight forwarders, and insurers. International transportation and transaction service providers represent a complex ecosystem aiming at supporting international trade and extracting added value. The providers of transportation services, like manufacturing firms, have become large multinational corporations due to the extensive markets they cover. The nature of what is being traded and the main traders involved influence the transportation modes used for international transportation. Maritime transportation dominates, handling about 80% of the volume and 70% of the value of international trade. The recent decades have seen important changes in international trade flows. A growing share of international trade occurs within regions even if long-distance trade has increased in absolute numbers. Trade predominantly takes place within Europe, North America, and East Asia, commonly referred to as the triad. Still, a shift in trade relations between the northern and southern hemispheres, particularly between developed and developing economies, has occurred. The structure of global trade has become much more complex in its relations and diversified in what is being traded.

The world right now is in a fast-paced through the growing influence of globalization. Every country needs to upgrade itself with the modernities called by the current conditions. Particularly in the Maritime shipping industry, this is one huge bridge to connect and reconnect one society to the rest of the world. The Maritime professionals have to be squarely equipped unto these realities and their mental dispositions also have to be aligned and conditioned as to this noble task. Trading activities and relationships cannot prolong and prosper without the means of transportation being improved and restructured. Globalization is a highly inevitable phenomenon which every state and government must face and handle. Seaports are affected by a wide range of economic, technological, and geopolitical developments. Shifts in global production and international trade are affecting port activity levels and operations. The demand for port traffic is derived from world trade. Global trade is impossible without transportation, making efficient transport a key trade facilitator. By definition, almost all the cargo carried by maritime shipping is considered to be international trade. Transport costs (both freight costs and time costs) constitute a key component of total trade costs. Undeniably, the maritime industry plays a pivotal function in this societal paradigm to keep the world moving. Even the blue economy is a very important part of the European economy, as it provides food and other resources, supports tourism, facilitates transport, and generates the production and use of renewable energy. Maritime transport is of great importance for the global economy, as it accounts for around 80% of worldwide trade highly affecting economic development. Both maritime transport and its related activities have a great overall impact on the economy, influencing a lot of industries, directly or indirectly. While maritime transport is considered the lynchpin of global trade, a lot of other industries rely heavily on it, as an array of resources are transported to manufacturing centers. Maritime transport implies a wide range of activities and, together with port activities and logistic nodes, has a great impact on the development of the maritime sectors and trade, which in turn fosters economic growth and job creation. Besides affecting economic growth and development, maritime transport has a great influence on sustainable development, as it is considered an environmentally friendly mode of transport. Although maritime activities do harm the environment, this impact is lower compared, for example, to road transport, and therefore shipping seems subject to less intensive regulation. Lane and Pretes in their research examine the impact of five major factors in maritime dependency on economic development and they find a significant
relationship between maritime dependency and gross domestic product per capita. They define maritime dependency as “the ability of a country to participate in maritime trade as determined by their geographic access to international waters and trade dependency”. Ports are essential for the support of economic activities in the surrounding areas, as they act as a critical association between sea and land transport. Goleblowski stated that water transport is the most energy-efficient form of transportation. However, maritime transport might increase its contributions to the impact on the environment in future years, so efforts should be made to reduce emissions from maritime transport, alongside other efforts for mitigating all kinds of negative impacts on the environment. Regarding the efforts towards reducing maritime pollution, it must be stressed that the International Maritime Organization (IMO) designed in 2018 is a strategy that set its main aims as reducing greenhouse gas emissions from international shipping by 50% until 2050 and the CO2 emissions intensity by 40% until 2030, as compared to the 2008 levels. This will call for a combination of operational measures, efficient investments in less polluting technologies, and more competitive market-based measures.

Research Methodology

Design
This study used the normative-descriptive survey method. It aimed to determine the Impact of the Maritime Shipping Industry to a Sustainable Economic Development among the Maritime teachers in the College of Maritime, University of Cebu Lapu-Lapu Mandaue. There are two kinds of quantitative research designs inclusive of the descriptive where the subjects are measured once and experimental where the subjects are measured before and after a treatment. Here, the study used a descriptive method to establish only associations between variables. A descriptive-normative survey conglomerates two research methods: first, the gathering of information as description of the object of study as it is, has been or is viewed (descriptive method); and second, the critiquing of the object so methods can be improved (normative method). Testing the recommended improvements is not an agenda of the descriptive-normative surveys. (www.ask.com)

Respondents
The Maritime teachers as respondents of the study were those current faculty in the College of Maritime, both from the Marine Engineering and Marine Transportation departments. The selection of who participated in this study is equally important and the recruitment is based on purposive strategy, which intentionally selected the research participants. This approach is supported by Esterberg (2002) who argued that a carefully chosen subject pool allows the researchers to explore different experiences among various individuals or groups. The sample size was selected using the Slovins formula which states that n= N/1 + Ne².

Environment
This study was conducted in the University of Cebu Lapu-Lapu Mandaue (UCLM). The school is located at A.C. Cortes Ave. Looc, Mandaue City. It is one of the pilot branches of the University of Cebu.

Instrument
The research instrument of this study was a self-made survey questionnaire. This was pilot-tested among the selected Maritime teachers in the university. Upon having done this, there were modifications made to make the questions clearer and understandable when administered among the teacher-respondents. The questions were particularly formulated based on the reliable and authentic sources.

Statistical Treatment
The study utilized the normative-descriptive survey method and so the data were collated, tabulated, and subjected to statistical treatment.

To determine the percentage of the respondents, the Simple Percentage was used. The frequency of the respondents generated were divided by the total number of students, then multiplied by 100%.
Results and Findings

Around fifty-five percent among the Maritime teachers belongs to the age bracket of forty-one years old and above. Twenty-seven percent comprises those aged thirty-one years old to forty years old. Only eighteen percent of the respondents includes those thirty years old and below. Ninety-one percent consists of the male Maritime teachers. About fifty-four percent among the respondents completed their Bachelor’s degree of the Maritime course or profession. And forty-five percent among them have units in the Masteral program. With respect to their understanding on the impact of the Maritime shipping industry to a sustainable development, around forty-six percent among the Maritime teachers strongly agree that the Marine transportation is an integral, if sometimes less publicly visible, part of the global economy. Thirty-six percent among them agree on this statement. About eighty-two percent strongly agree that the shipping has been an important human activity throughout history, particularly where prosperity depended primarily on international and interregional trade. Fifty-four percent among the respondents agree that globalization is not a new phenomenon which affects all the sectors in the society, including the Maritime industry. The latter was strongly agreed upon by the thirty-six percent among the Maritime teachers. About sixty-four percent among the respondents strongly agree that many countries have seen astonishing economic growth in the recent past due to their willingness to open their borders and markets to foreign investment and trade. And thirty-six percent are agreeable on this premise. Furthermore, about fifty-five percent among the Maritime teachers strongly agree that globalization refers to the integrated economy marked especially by free trade, free flow of capital, and the tapping of cheaper foreign labor markets. Forty-five percent among the respondents agree on the said statement. Sixty-four percent strongly agree that the Maritime shipping is an enabler of globalization and thirty-six percent among them agree on this premise. About sixty-four percent among the Maritime teachers strongly agree that globalization has increased the demands for maritime shipping, while maritime shipping (as an integrated component in a larger goods movement system) has more fully enabled globalization. And thirty-six percent among them agree on this statement. Forty-six percent of the respondents strongly agree that for many commodities and trade routes, there is no direct substitute for waterborne commerce. The other forty-five percent agree on this perspective. Around seventy-three percent among the respondents strongly agree that the other important marine transportation activities include passenger transportation (ferries and cruise ships), national defense (Naval vessels), fishing and resource extraction, and navigational service (vessel-assist tugs, harbor maintenance vessels, etc.). Sixty-four percent agree that globalization identified labor markets overseas that encouraged transport of semi-raw materials and intermediate products where manufacturing costs were lower and the thirty-six percent agree on this premise. They further agree that globalization has encouraged transactions of goods and services in smaller packets delivered “just-in-time.” Fifty-four percent agree and fifty-five percent strongly agree on this statement. Fifty-four percent among the respondents strongly agree that there are a number of energy and environmental impacts associated with the movement of goods through globalization. And forty-five percent among them agree on this premise. A resounding sixty-four percent agree that a consequence of marine engine technologies is increased air pollution. And the twenty-seven percent among the respondents strongly agree on the statement. About sixty-four percent as well among the Maritime teachers agree the nations selling the most fuel to commercial ships are typically nations with strong interests in the cargoes or services those ships provide. And thirty-six percent among them strongly agree on this matter. Sixty-four percent agree that the fuel types used in marine transportation are different from most transportation fuels. And twenty-seven percent among them strongly agree on the said premise. Eighty-two percent among the Maritime teachers strongly agree that the Maritime transport is the backbone of the global trade and the global economy. Fifty-four percent agree
that as the world’s population continues to grow, particularly in developing countries, low-cost and efficient maritime transport has an essential role to play in growth and sustainable development. Forty-five percent of the respondents strongly agree on this premise. Moreover, sixty-four percent strongly agree that no country is entirely self-sufficient, and every country relies on maritime trade to sell what it has and buy what it needs. And twenty-seven percent agree on this premise. Forty-five percent strongly agree on the statement that the jobs and livelihoods of billions of people in the developing world, and standards of living in the industrialized and developed world, depend on ships and shipping. The other forty-five percent among the respondents agree on the latter statement. Sixty-four percent agree that the importance of shipping in supporting and sustaining today’s global society makes it indispensable to the world and to meeting the challenge of the 2030 Agenda for Sustainable Development. And the thirty-six percent among them strongly agree on the said statement. Sixty-four percent strongly agree that seafaring has long been an international industry which has resulted in multinational crews. And the thirty-six percent agree on the said premise. Another sixty-four percent among the respondents strongly agree that the Maritime shipping is one of the main activities of the blue economy, which plays an important role globally. Thirty-six percent also agree on the latter statement. Sixty-four percent strongly agree that the people’s lives and economies would not be the same in the absence of the activities carried out in seas and oceans. In addition, fifty-four percent agree that the Maritime transport is of great importance for the global economy, as it accounts for around 80% of worldwide trade, highly affecting economic development. Fifty-five percent agree that the Maritime transport implies a wide range of activities and, together with port activities and logistic nodes, has a great impact on the development of the maritime sectors and trade, which in turn fosters economic growth and job creation. Forty-five percent agree on the said premise. Seventy-three percent among the Maritime teachers agree that the Maritime shipping is considered an environmentally friendly mode of transport. The fifty-four percent among them strongly agree also that participating in the global maritime trade is a very important factor for attracting global capital. Sixty-four percent among them strongly agree that Maritime shipping is important for international trade, economic success, and global development patterns. Such that the development of maritime shipping through better management promotes sustainable economic development. Sixty-four percent among them strongly agree on this matter and the thirty-six percent agree with this perspective.

**Conclusion**

More than the majority of the Maritime teachers strongly agree on the following statements that: marine transportation is an integral, if sometimes less publicly visible, part of the global economy; shipping has been an important human activity throughout history, particularly where prosperity depended primarily on international and interregional trade; many countries have seen astonishing economic growth in the recent past due to their willingness to open their borders and markets to foreign investment and trade; globalization refers to the integrated economy marked especially by free trade, free flow of capital, and the tapping of cheaper foreign labor markets; maritime shipping is an enabler of globalization; globalization has increased the demands for maritime shipping, while maritime shipping (as an integrated component in a larger goods movement system) has more fully enabled globalization; for many commodities and trade routes, there is no direct substitute for waterborne commerce; other important marine transportation activities include passenger transportation (ferries and cruise ships), national defense (Naval vessels), fishing and resource extraction, and navigational service (vessel-assist tugs, harbor maintenance vessels, etc.); there are a number of energy and environmental impacts associated with the movement of goods through globalization; shipping is not only among the least costly modes of transportation, but also the most energy efficient; maritime transport is the
backbone of the global trade and the global economy; no country is entirely self-sufficient, and every country relies on maritime trade to sell what it has and buy what it needs; the jobs and livelihoods of billions of people in the developing world, and standards of living in the industrialized and developed world, depend on ships and shipping; seafaring has long been an international industry which has resulted in multinational crews; maritime shipping is one of the main activities of the blue economy, which plays an important role globally; people’s lives and economies would not be the same in the absence of the activities carried out in seas and oceans; participating in the global maritime trade is a very important factor for attracting global capital; maritime shipping is important for international trade, economic success, and global development patterns; and the development of maritime shipping through better management promotes sustainable economic development. Additionally, the Maritime teachers as respondents of this research agree on the following premises: globalization is not a new phenomenon which affects all the sectors in the society, including the Maritime industry; globalization has encouraged transactions of goods and services in smaller packets delivered “just-in-time”; a consequence of marine engine technologies is increased air pollution; the nations selling the most fuel to commercial ships are typically nations with strong interests in the cargoes or services those ships provide; fuel types used in marine transportation are different from most transportation fuels; as the world’s population continues to grow, particularly in developing countries, low-cost and efficient maritime transport has an essential role to play in growth and sustainable development; the importance of shipping in supporting and sustaining today's global society makes it indispensable to the world and to meeting the challenge of the 2030 Agenda for Sustainable Development. Moreover, in the context of the current high concerns and determinations regarding the transition to a green economy, there is scope for improving technologies used in port infrastructure and shipbuilding in order to reduce the impact on the environment. The Maritime teachers are particularly aware and conscious as well on the environmental impacts of the Maritime industry. Strengthening collaborative efforts and programs of the Maritime schools and university is a current development of the maritime sectors and trade, which in turn fosters economic growth and job creation; and the maritime shipping is considered an environmentally friendly mode of transport.

**Recommendations**

The positive and significant impact of the Maritime industry to a sustainable economic development is strongly agreed and understood by the Maritime teachers in the university. What is primordial here is the kind of connections and applications these can bring about on their dealings in the actual Maritime field, in the ports and on the seas. On the academe aspect, the Maritime curriculum indeed has to be revitalized and reinvigorated to suffice the pressing demands of the Maritime industry. Faculty trainings and orientations stretching on the impact of the Maritime industry to a sustainable economic development need to be conducted, both internally and externally from the school campus. Globalization is the trend nowadays, hence, collaboration is the perfect name of the game. Truly, maritime shipping helps ensure that the benefits of trade and commerce are more evenly spread. No country is entirely self-sufficient, and every country relies on maritime trade to sell what it has and buy what it needs. Much of what we use and consume in our everyday lives either has been or will be transported by sea, in the form of raw materials, components or finished articles. The importance of shipping in supporting and sustaining today's global society makes it indispensable to the world and to meeting the challenge of the 2030 Agenda for Sustainable Development. The Maritime teachers are particularly aware and conscious as well on the environmental impacts of the Maritime industry. Strengthening collaborative efforts and programs of the Maritime schools and university is a current development of the maritime sectors and trade, which in turn fosters economic growth and job creation; and the maritime shipping is considered an environmentally friendly mode of transport.
necessity in performing and accomplishing the global demands for a sustainable economic development.

References


