

# IMPROVING GOVERNANCE OF MARITIME HIGHER EDUCATION INSTITUTIONS TO ENSURE SUCCESS OF FILIPINO CADETS

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## Abstract

The Philippines' Maritime Education and Training (MET) system is currently producing approximately 30% of the global seafaring workforce. Although the need for seafarers' supply will be maintained stable in the future, MET institutions in the country under discussion are currently facing an important problem: low success rate of their cadets. It is indicative that during the academic year of 2015-2016, only 19.73% of those cadets successfully completed all the requirements for graduation [1], a rather low figure. The analysis at hand examines how such a low success rate is understood from the perspective of governance in higher education, by identifying failures in the governance system. Under the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers (STCW), 1978 as Amended, MET institutions are under the oversight of three government organizations namely, the Maritime Industry Authority (MARINA), the Commission on Higher Education (CHED), and the Technical Education and Skills Development Authority (TESDA) [2]. In total, seventy maritime higher education institutions exist in the Philippines. Sixty-six of them are private institutions, where students pay out of their pocket for their matriculation, sundries, and other fees. Any hindrances associated with school management and administration could lead to an increase in tuition fees, which would then create an additional burden for students. Furthermore, a mismatch between governing authorities' policies/expectations and the overall performance of maritime higher education institutions can be considered a governance issue, because poor performance is often a result of low level of supervision of those MET institutions. The analysis at hand reflects upon a "bureaucratic" theory of organization and management [3] and discusses how a poor level of governance is influencing negatively the success of marine cadets. This analysis is also factoring in the implication of the United Nations Sustainable Development Goals (UNSDGs), in particular Goal 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), to the observed challenges in maritime higher education in the Philippines. It broadly discusses the issue of governance within the higher education context and how quality education and training should be provided/monitored to improve the chances of cadets' success. A conclusion standing out is that students' success depends heavily on effective management by the institutions themselves, as well as their effective oversight by the respective government entities.

Keywords: maritime education and training, governance, SDG 4, management processes, success.

## 1 INTRODUCTION

Sea transport, fishing, marine tourism and other maritime activities have been part of the lives of many Filipinos that can be traced on the archipelagic state of the Philippines with approximately 7,100 islands. Hence, there is a great tendency for the Filipinos to pursue a maritime career through the aid and service of different schools who offer a variety of maritime courses and programs [4]. As a result, the Philippines have around 402,000 Filipino seafarers that contributed to roughly 30% of the global maritime workforce [2].

Consequently, from 2003 to 2010, the Philippines was the biggest supplier of seafarers comprising 12.39% of officers and 21.86% of ratings worldwide [5]. In 2015, the Baltic and International Maritime Council (BIMCO) and the International Chamber of Shipping (ICS) summarized in their Manpower Report that China, the Philippines and Russia were on an equal rank as the leading supply countries [6]. However, in terms of ratings, Philippines remained to be the biggest supplier of ratings worldwide followed by China and Indonesia. There is an escalating demand for seafarers which will likely continue and is expected to rise to 92,000 in 2020 and about 147, 500 in 2025 [2]. Thus, there seems to be a promising future for anyone who decides to become a seafarer.

Over the years, the remittances of Filipino seafarers have significantly contributed to the development of their country of origin. In 2011 seafarers remitted the total of US\$ 4.4 billion representing about 22% of the total remittances of US\$ 19.4 billion from Overseas Filipino Workers [7]. In a study made by the

Commission on Filipinos Overseas (CFO) in 2016, Filipino seafarers infused about US \$5.575 billion to the country's economy through their remittances. Total remittances from the seafarers alone accounted for 9.8 % of Gross Domestic Product and 8.3 % of Gross National Income [8]. Bangko Sentral Filipinas projected that the Filipino seafarers' remittances could exceed US\$6 billion by 2018 [9]. The Philippines counts on the maritime industry as a vital component in attaining inclusive growth and reducing socio-economic instability.

The country has a huge human capital matching the general requirements of the maritime labor market which still holds a great potential due to the growing number of vacant officer positions on international vessels [10]. The role of the Philippines' Government in ensuring conformity with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping (STCW) 1978 and its Amendments in turn makes the Filipino seafarers more responsive to the needs of the industry thereby maintaining the global competitiveness of Filipino seafarers serving international ships [7]. The Philippines is expected to flourish further if the regulating government agencies will continue to strengthen its ongoing procedures of ensuring the compliance of schools in the prescribed standards [8].

However, the success of Filipino cadets in maritime education and training (MET) is as low as 19.73% [1]. This paper discusses how the success of marine cadets may be improved from a perspective of governance in higher education of the Philippines. The following section provides the necessary literature review that identifies a mismatch between governing authorities' policies/expectations and the overall performance of maritime higher education institutions and puts forward the notion that this situation is mainly a governance issue. In order to discuss how a poor level of governance is influencing negatively the success of marine cadets, this study reflects upon a "bureaucratic" theory of organization and management [3]. An explanation of the method and details of findings are presented before the concluding remarks.

## **2 LITERATURE REVIEW**

### **2.1 The maritime higher education in the Philippines**

There are academic institutions and training centers termed as "Maritime Education and Training Institutions" (METIs) that provide education and training to those who want to pursue a seafaring career in the maritime industry. These METIs are governed by three (3) government organizations namely, the Maritime Industry Authority (MARINA), Commission on Higher Education (CHED), and Technical Education and Skills Development Authority (TESDA) [2]. CHED and MARINA releases the joint memorandum circular that covers the guidelines on joint monitoring of maritime education programs to strengthen the implementation of STCW Convention and its amendments.

The maritime higher education in the Philippines usually consists of a four-year degree programs that correspond to a Bachelor of Science in Marine Transportation (BSMT) or Bachelor of Science in Marine Engineering (BSMarE). Typically, there is four-year requirement, served by a three-one (3-1) program composed of three years of academic courses before the onboard training in the final year. There is also the two-one-one (2-1-1) program where the onboard training is on the third year and academic courses is scheduled on the first two years and last year. Maritime schools had an average annual enrollment of 71,200 students in 2006-2010, with about 16% or 11,386 students graduating after four years of study/work. This grew up to 124, 438 enrollees in the three years of the BSMT and BSMarE programs for the AY 2015-2016. In the same year, 25,855 maritime midshipmen (BSMT 14,542; BSMarE 11,393) have completed their academic requirements and are waiting for shipboard training berths. A rather low figure of 5,101 have actually completed their respective program with the required 12 months shipboard training, or only about 19.73% of those who completed their academic requirements [1]. This means that an estimated 20,754 cadets failed to graduate because of lack of shipboard training berths and are added to the majority of graduates who are waiting for their chance to fulfill the requirement of shipboard training.

Accordingly, there are seventy (70) recognized "Maritime Higher Education Institutions" (MHEIs) in the Philippines; sixty-six (66) are private institution distributed in the sixteen (16) administrative regions in the Philippines, as shown in Fig. 1. It is very important to highlight the fact that in private MHEIs the students have to pay for the tuition, sundries and other fees, while in public MHEIs the matriculation is free by virtue of the Universal Access to Higher Education Act of 2017 which declares that higher education is an alienable right of every Filipino and it is a policy of the state to protect and promote the rights of all the students to quality education. The minimum salary of the Filipino family is Php16,110

per month in Metro Manila while Php9, 150 in ARMM as the lowest comparing salary against the tuition fee of Php 34,000 - Php110,000 per year. Considering the situation, the government can still do certain things when it comes to the onboard training opportunities provide by the domestic fleet. On the international fleet, the MARINA's policy directions are said to be guided by following main strategic objectives, namely an "Attractive Philippine Ship Registry", promoting the establishment of the Philippines as a major center for shipbuilding and ship repair, creating a modern and vibrant domestic merchant fleet as part of a seamless, transportation system and sustained development of globally competitive seafarers [8]. If all these important aim are accomplished, they can definitely exercise a very positive influence on the current situation of maritime education.

## **2.2 MET Governing Bodies and STCW Convention**

The STCW Convention, as amended, provides the regulatory mandatory and recommendatory provisions for the competency required for the international maritime education and training. Each nation that is signatory to the STCW Convention is bounded to implement its contained regulation and assign an agency in-charge of implementation thereof. In the Philippines, by the virtue of the MARINA act [11], MARINA is declared as the sole agency in-charge of the implementation of STCW Convention and its amendments and other international conventions related thereto. In this law, governance of MHEIs, MTIs and technical or vocational institutions shall be overseen by MARINA in reference to compliance with the requirement to STCW conventions as amended. MARINA assumed a new mandate under Executive Order (EO) No. 75 designating the then Department of Transportation, through MARINA, as the Single Maritime Administration in the Philippines responsible for the oversight in the implementation of STCW Convention, with the new mandate of MARINA as indicated in EO No. 75, the maritime functions of Maritime Training Center (MTC) and the training aspect of the maritime industry formerly handled by TESDA, is now handled by MARINA [12].

## **2.3 Bureaucratic Theory of Organization**

The theory of modern public administration, for instance, assumes that the authority to order certain matters by regulation--which has been legally granted to public authorities--does not entitle the bureau to regulate the matter by commands given for each case, but only to regulate the matter abstractly. Sampson, Turgo, Alejo, Ellis & Tang quoted Gouldner (1954) that bureaucracy was encapsulated on two (2) forms: "representative" and "punishment" centered. The former was based upon rules which are established by agreement and administered by especially qualified personnel. In this form consent is given voluntarily and is predicated by the trust on the personnel who administered and justify the associated rules [14]. The latter is a punishment centered bureaucracy and is founded on the notion of obedience, reprimand and penalty. Many sociologists conceptualize trust with reference to the work of George Simmel as Hardin (2006) stated to which confidence was one of the most important synergic forces within the society [14]. Generally, trust can be defined as the state of favorable expectations regarding other people's actions and intentions which is based on the degree of knowledge or familiarity [15, 16]. Without trust as a basis of social action, Sampson, et. al states the arguments of contemporary theorist that society maybe paralyzed, chaotic and fearful [15, 17]. In the implementation of PSG of MHEIs in the Philippines, the form is always punishment centered, non-conformance observed in monitoring of MHEIs is always associated with imposition of sanction that includes phasing out of maritime programs (JCMMC # 1, Art. X, Para 3., 2018).

According to Marcelo [18], corruption is usually more widespread and deep-rooted in developing countries, including the Philippines, wherein corruption in the government has been a perennial problem. The Philippines --having an open problem with graft and corruption at the various government levels-- can look into the article of Sapmson et al. [14] that states Khodyakov (p. 121) [19] who highlights the extent to which bureaucratization not only derives from the lack of interpersonal trust but also to enhance distrust in something of a vicious cycle. Likewise, the analysis at hand will also look into the sentiments that is attributed to Vladimir Ilych Lenin Ulyanov that popularized "trust is good but control is better" [20] together with Sztompka(1999) suggesting that "fear, control, power and corruption are all present in organizations and societies where trust is absent [19].

## 2.4 The Quality Tertiary Education Act of 2017 and the United Nations Sustainable Development Goals (UNSDGs)

The UNSDG Goal 4 evolve on the principle that education is a fundamental human right and an enabling right. Each country must ensure universal access to inclusive and equitable quality education and learning, for all its citizens. The state is the main duty-bearer in protecting, respecting, and fulfilling the right to education. Education implies an inclusive process of public policy formulation and implementation. Every citizen has all have important roles in realizing the right to quality education and the role of the state is essential in setting and regulating standards and norms [21].

In response, The Philippine congress passed the Republic Act 10931 also known as the Universal Access to Quality Tertiary Education Act of 2017 which declared “that higher education is an alienable rights of every of every Filipinos and it is the policy of the state to protect and promote the rights of all students to quality education at at all levels and the state must make steps to make such education accessible to all” [22]. Section 2, declares that:

*...“ the state hereby recognized the public and private higher education institutions and technical vocational institutions in the educational systems and the invaluable contributions that the private tertiary schools have make and will make to education for this intent the state shall:*

*a) Provide adequate funding and such other mechanisms to increase the participation rate among all socio-economic classes in education....*

Subsequently, guidance was issued by CHED in December 2016 for the implementation of free tuition for SUCs. CHED further states that the law will incrementally improve enrollment rates and will help free up financial resources for other expenses and needs of students. In broader perspective this will eventually increase the available income of families [23].

According to A.M. KJar [24], governance is the capacity of the government to make and implement policy, ultimately to steer society. In the Philippines, the importance of the role played by governance in the success in maritime cadets is paramount. However, at present, the efforts that the government, MHEIs, shipping and sponsoring companies to fill the gap towards cadets’ success in Maritime Higher Education in order to sustain the supply of competent marine officers for the global shipping needs still needs further improvements.

## 3 METHODS

The analysis at hand is based on a proposed study and pilot testing that was conducted from March to December 2019. It adopted a quantitative approach to determine if indeed there was a gap in the success of cohorts enrolled in maritime higher education institutions in the Philippines and how to the academic personnel perceived are the reason for such gap if any relative to the governance of MHEIs.

For the enrollment figures and the number of MHEIs within the administrative regions of the Philippines (Figure 1), a request was made for the respective CHED regional offices. Eight regional offices representing 53 MHEIs respond to the request while the CHED-Office of Products and Standards Development (CHED-OPSD) responded with the complete list of all the MHEIs enrollees and graduates for the school years 2016-2018. This two sets of data enabled to compare the records received from CHED regional offices and central office. Secondary data was also obtained from the CHED-Knowledge Management Division that provides statistics informatics archived statistics on higher education data [13]. The data obtained were initially used to determine if there was indeed foreseeable gap between the cohorts and those who actually graduated in maritime programs of both private and public MHEIs.

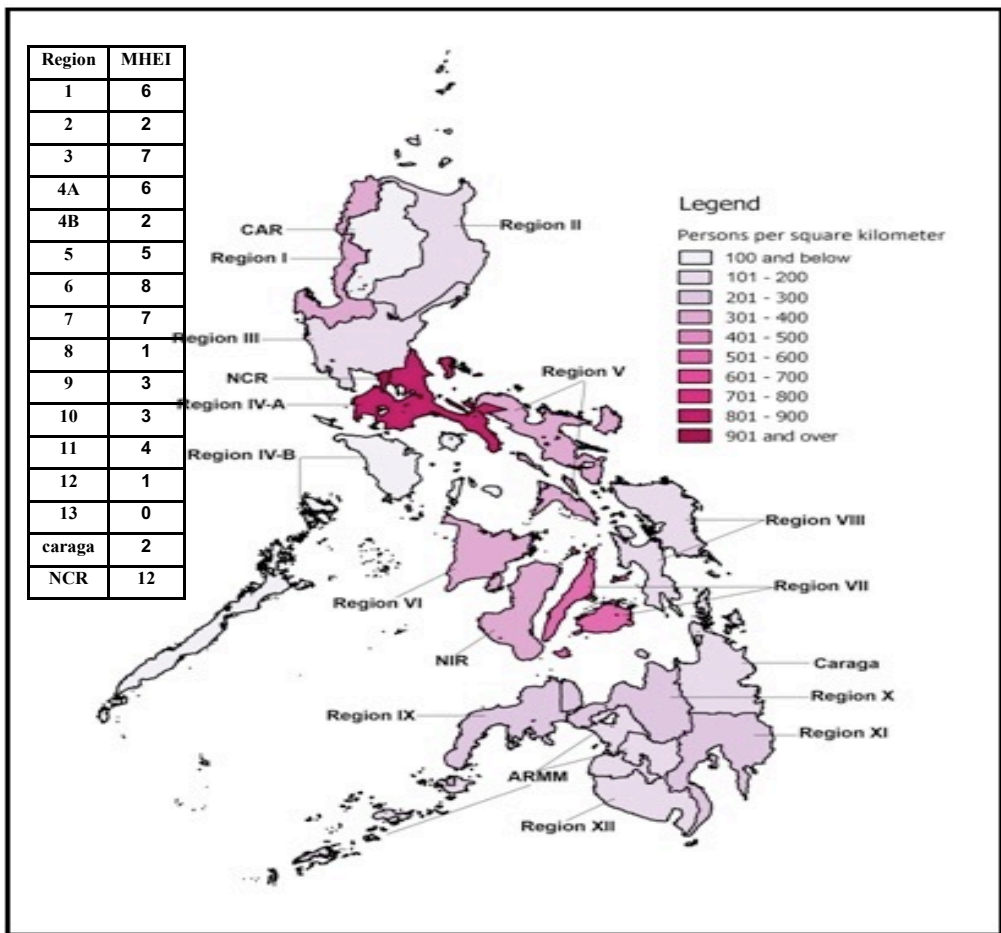


Figure 1. Regional location of MHEIs (Source: PSA and LMB, DENR)

#### 4 RESULTS

In maritime higher education, in spite of all the efforts of the government, the success in terms of completion of programs and shipboard employment remains low. For the period (SY) 2017-2018, Table 1 presents that only 13,835 graduated the four-year baccalaureate program or 35% of the 39,012 students who completed the third year level on the previous year. Contribution of maritime education in the realization of UNSDG remains scarce. By examining this figure, it becomes obvious that the chance of success in maritime higher education is not in favor of the students, as the International Association of Universities defines the goal of access policies to be successful participation in higher education, as success without reasonable chance of success is an empty phrase [26].

Table 1: Philippine MHEI graduates for S.Y. 2017-2018

| Program  | 3 <sup>rd</sup> year level | Competed Courses for Onboard Training | Graduates |         |       |
|----------|----------------------------|---------------------------------------|-----------|---------|-------|
|          |                            |                                       | Public    | Private | Total |
| Maritime | 39,012                     | 29,580                                | 2761      | 16,129  | 13835 |

(Source: Authors' analysis based on the data from the Commission on Higher Education (CHED))

Further, the success rates of Philippine MHEI cadets (summarized/presented in Table 2) is associated with a regional gap across the different regions of the Philippines (shown earlier in Figure 1). Data reveals the success rate of MHEIs is only 17% throughout the Philippines. This means that only 17% of marine cadets shall have an embarkation opportunity and ultimately work onboard the ship as a seafarer. Figures per region reveal that the success does not depend with the number of enrollments, but on other factors that can be discovered as the study progresses further.

Table 2: Philippine MHEI success rates by region for S. Y. 2017-2018

| <b>Region</b> | <b>Enrollment</b> | <b>Graduates</b> | <b>Success rates</b> |
|---------------|-------------------|------------------|----------------------|
| I             | 7304              | 740              | 10%                  |
| II            | 1708              | 318              | 19%                  |
| III           | 5693              | 1094             | 19%                  |
| IV-A          | 5941              | 832              | 14%                  |
| IV-B          | 904               | 46               | 5%                   |
| V             | 3347              | 636              | 19%                  |
| VI            | 12330             | 2685             | 22%                  |
| VII           | 18271             | 3780             | 21%                  |
| VIII          | 1054              | 426              | 40%                  |
| IX            | 2266              | 743              | 33%                  |
| X             | 2113              | 557              | 26%                  |
| XI            | 3940              | 410              | 10%                  |
| XII           | 1623              | 418              | 26%                  |
| XIII          | 744               | 217              | 29%                  |
| NCR           | 13550             | 933              | 7%                   |
| Total         | 80,788            | 13835            | 17%                  |

(Source: Authors' analysis based on the data from Commission on Higher Education, Central and Regional Offices)

The MHEI graduates' success rates can be also reviewed in the context of the unemployment rates by region. Table 3 summarizes the unemployment rates and the success rates of MHEI cadets. Although some regions with low employment rates produces more graduates and high success rates, in this analysis, the employment rates are not definitive and consistent indicators to the success rates and number of graduates of the MHEIs. This can be partially construed that the maritime profession is being viewed by the populace as either source of labor, profession or merely just a tradition of the family. Likewise, records also showed that the maritime professions are not popular to places where labor participation rate is low like the Autonomous Region of Muslim Mindanao (ARMM) where no MHEI is in place and the Cordillera Autonomous Region (CAR) which is landlocked and also no MHEI is in place.

Table 3: Philippine unemployment rates and MHEI success rates by region

| <b>Region</b>                        | <b>Employment Rates/ Labor Force Participation</b> | <b>Graduates</b> | <b>Success rates</b> |
|--------------------------------------|--|------------------|----------------------|
| I                                    | 93.2 / 61.7  | 740              | 10%                  |
| II                                   | 97.0 / 63.9  | 318              | 19%                  |
| III                                  | 94.2 / 59.9  | 1094             | 19%                  |
| IV-A                                 | 93.4 / 62.7  | 832              | 14%                  |
| IV-B                                 | 95.3 / 62.0  | 46               | 5%                   |
| V                                    | 95.1 / 60.9  | 636              | 19%                  |
| VI                                   | 94.7 / 61.2  | 2685             | 22%                  |
| VII                                  | 94.7 / 61.3  | 3780             | 21%                  |
| VIII                                 | 95.8 / 61.2  | 426              | 40%                  |
| IX                                   | 95.9 / 56.3  | 743              | 33%                  |
| X                                    | 95.9 / 66.3  | 557              | 26%                  |
| XI                                   | 95.7 / 60.3  | 410              | 10%                  |
| XII                                  | 96.1 / 61.7  | 418              | 26%                  |
| XIII                                 | 96.0 / 64.4  | 217              | 29%                  |
| NCR                                  | 93.4 / 60.3  | 933              | 7%                   |
| Cordillera Administrative Region     | 95.9 / 61.9  |                  |                      |
| Autonomous Region of Muslim Mindanao | 96.3 / 46.6  |                  |                      |

(Source: Authors' analysis based on the data from Commission on Higher Education, Central and Regional Offices and Philippine Statistics Authority Regional Employment Rates [26])

## 5 CONCLUSION

The maritime profession evidently contributes to social and economic development of the Philippines; socially there are around 406, 531 seafarers deployed worldwide and economically there are around 5.5 billion remittances on an annual basis. In addition, opportunities are still ripe for more deployment due to deficiency in the world supply of competent seafarers. MARINA by virtue of the “Marina Law” is vested with all administrative and legal authority to oversight and lead the implementation of the STCW Convention as amended, as well as other laws and orders leading to success of Filipino cadets in particular and maritime profession in general. These can result into more placement of Filipino seafarers leading to increase economic stability and reduction of social instability.

But in realization of these, everything needs to start with the success of Filipino cadets that definitely will soon be the source of labor for all the prospects MARINA is strategizing. The idea of the current system implemented by Marina through the “Joint CHED-MARINA Memorandum Circulars” is still unrealized and Filipino Cadets success is still scarce. This is evident by the low success rate of Maritime cadets in almost all regions. The system of governance MARINA implements to maritime higher education needs to be reviewed in consideration of SDG 4, Quality Tertiary Education Act 2017 and the compliance with requirement of STCW Convention as Amended. Acknowledging that this is just a preliminary effort, further studies should be conducted to delve into this situation more deeply.

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