Performance of BSCA Graduates at Asian Institute of Maritime Studies in the Licensure Examination from 2013 to 2022

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Abstract
This research studies the performance of BSCA (Bachelor of Science in Customs Administration) graduates of the Asian Institute of Maritime Studies (AIMS) in the Customs Broker Licensure Examination (CBLE) from 2013 to 2022. The study purports to determine the performance of AIMS graduates in the subjects covered in the licensure examination. Moreover, this research aims to identify their strengths and weaknesses as well as to explore the relationship between year of examination and performance on the 4 core subjects.

This research utilized a descriptive-correlational research design. The researchers analyzed the data gathered from CBLE results from (PRC). Specifically, the researchers include BSCA graduates of AIMS who took the CBLE from 2013-2022. The findings of this research revealed that the passing rate of AIMS BSCA examinees is below the required 75% passing rate, indicating a difficulty among AIMS graduates in passing their licensure exam. Furthermore, analysis of the subject areas demonstrated that customs laws, rules, regulations, ethics, and customs broker practices is the subject where the respondents perform the highest, while tariff classification and practical computations is the subject where respondents perform the weakest.

In addition, statistical analysis of the data demonstrated significant differences in performance among the years for all four subjects. It also suggested a significant relationship between the year of examination and graduate performance in customs documentations, clearance, and procedures as well as tariff laws, rules, regulations. In conclusion, the study highlighted the importance of thorough preparation for the CBLE and suggests that examinees can gain an advantage by enhancing their knowledge and skills in specific subject areas of the CBLE. The findings emphasized the need for developing a program to improve CBLE performance. The study strongly recommends targeted interventions and initiatives to strengthen knowledge and skills in areas where respondents performed the weakest.

Keywords: Customs Broker Licensure Examination, Board performance, BSCA Graduates

1. Introduction
The transfer of goods from one country to another is set by globalization, aided by international trade and tariff and customs laws applicable in each country. The people behind these operations are the advocates of globalization and international trade. Customs administration graduates are front liners in the transfer
of goods from one port to another, applying the tariff and customs law of the country and working on the logistics of imports and exports of goods. Hence, it is necessary that each customs broker be licensed. Global trade is growing, there has been a revolution in innovative technology, and there have been significant changes in business models, all of which present new issues for customs administrations. The advantages of a successful customs administration are obvious, as is the requirement for creating effective, efficient, fair, and contemporary customs administrations (Azcarraga et al, 2022).

Chiukira (2019) posited that countries are now required to take trade facilitation measures through their customs agency in order to make sure that no non-tariff barriers obstruct trade. Before any policy framework can be put into place at the national or regional level, the customs administration must be equipped to embrace these trade facilitation measures. The expansion of regional trade agreements, the growing trading in finished goods by developing nations, the globalization of industrial processes, and the ongoing diversification of exports are the main justifications given for trade facilitation measures.

The grant of competence by the Professional Regulation Commission to an individual intends to ensure that the graduate has mastered a body of knowledge, possessed a minimum level of professional competence, and acquired the necessary skills in a particular specialization. This is embodied in Republic Act No. 9280, otherwise known as “An Act Regulating the Practice of Customs Brokers Profession in the Philippines, Creating for the Purpose a Professional Regulatory Board for Customs Brokers, and Appropriating Funds Therefor,” specifically Section 14. The areas include the following: tariff laws and international trade agreement govern the trade practices of countries, usually anchored in export and import; warehousing that is vital in the storage of goods; transportation and cargo handling operations from one port to another; customs laws and implementing rules and regulations guiding the entry and exit of goods in different ports; and practical computation of customs duties and taxes and other charges that accrue to the benefit of the government.

For educators and researchers, they strongly affirm that there could be other potential reasons that affect performance in board exams such as inadequate study habits, lack of knowledge on how to prepare, lack of confidence, poor trust taking skills, poor preparation, and overwhelming family responsibilities. Similarly, Webster (2020) found out that those who fail in the licensure exams mentioned that they were not prepared, stressed and have spent long time after graduation before taking the licensure exam. The passers of the CBLE affirm the importance of thorough preparations and existence of predictors such as academic performance (Estrada, 2020; Cabanban, 2017; and Bongalosa, Formanes and Gabito, 2021).

Also, institutional accounts are seen as a great contributory factor as they measure student performance progressively, and such institutions award exemplary performances in the form of academic recognitions and certifications. They are indicative that a graduate with such recognitions will make it in the licensure exams because of the honing of knowledge and skills by the school (Castillo, 2018). The big factor remains the responsibility of the higher education institutions to show consistency in board examination performance, redefining the curriculum if performance turns dismal. Hence, curricular revision for the course program is “premised on the need to equip graduates with sound fundamental, technological, professional and technical knowledge with research capability to professionally and ethically deal with internationalization and standardization of customs and trade practices and supply chain as embodied in various international agreements” (Sec. 1, CMO No. 30-2021).

Institutions of higher learning prepare the students with the necessary knowledge, skills and traits based on the course program. Both hard and soft skills useful in the future careers of students are primordial considerations, especially when the course program requires a licensure exam that will qualify
the graduates in their future endeavor. It becomes an imperative for the school to prepare the students in real-life situations based on their chosen career.

The performance of BSCA graduates of Asian Institute of Maritime Studies in the licensure examination reflects how the school developed and honed the knowledge, skills and competencies of the graduates based on the institutional core values. Academic performance of graduates during their schooling is a good predictor in passing the licensure examination (Ibarrientos, 2022).

To ensure student’s success in this licensure examination, the formative years of scholastic training of the graduates mean a lot in the success of each examinee. According to Webster (2020), one of the most beneficial tools for those who successfully passed the licensure examinations is the use of review materials. It also includes the sample online sources or exercises which proved to be helpful when it comes to the use of their own notes.

Equally important indicators or variables that affect their performance in the licensure examination must also be given importance since these predictors contribute to the formative years and preparation of the graduates in the licensure examination. Though the scholastic practices become relative on the part of each student, their scholastic records may be important predictors in their licensure examination scores, such as their weighted average or overall grade point average whatever is applicable. Amanonce and Maramag (2020) affirm that scholastic grades, especially the weighted average of the licensure examinees is significant and strongly correlated to their performance in the licensure examination.

Majority of occupations in our country have a regulatory prerequisite for professional practice, the licensure examination. The applicable regulations that specify the minimal degree of competency across numerous domains of specialty serve as the basis for state-administered exams. The board exam, which is only given once a year, now consists of four (4) subjects, including practical computation of customs duties, taxes, and other charges, warehousing, transportation, and cargo handling operations, as well as customs laws and implementing rules and regulations.

Based on the Professional Regulations Commission (PRC) website, the overall percentage of examinees in the last three examinations reveals that the passers each year are below half of the takers since 2019 up to present. Despite rigorous preparations, many examinees still fail. The challenge is now on the academic institutions to come up with their strategy aimed towards improvement. The only way to address issues on failure in CB licensure examination is to thoroughly prepare and train students, hone their knowledge and skills based on the needs of their program, formulate review strategies, and produce a program or model of student training relevant to the areas of the licensure examination. All of these will be addressed through an action plan that is conceptualized in a program of action as recommendation.

The context of accountability further relates to the complex issues on student support services, administrative policies, and academic achievement standards. The failure to meet licensure examination targets, for instance, may be a basis for harsher sanctions while consistent high performance in these tests may lead to recognition and financial rewards. The general goal of standards-based learning is to ensure that students are acquiring the knowledge and skills that are deemed to be essential to success in school, higher education, careers, and adult life.

2. Literature Review

2.1 Customs Broker Licensure Examination. In the United States, CB licensure examination is given twice a year, where examinees need 75% to pass the exams in 4.5 hours out of 80 multiple choice-type
questions. The subject areas include ACE; bonds; broker compliance; classification; drawback; entry; fines and penalties; foreign trade zones/bonded warehouse; free trade agreement; intellectual property rights; marking; quota; valuation; and other subjects pertinent to a broker's duties (Pearson VUE, 2023).

According to Imports Academy (2022), CB licensure examination is one of the hardest examinations since only a few passes the examinations. The materials required for the examination include Title 19, Code of Federal Regulations parts 1-199; harmonized tariff schedule of the US in the current year, ACE entry summary business process 10.5, ACE Entry Summary Instructions Version 2.4a and the right to make entry directive 3530-002A.

2.2 Tariff Laws, Rules and Regulations, and International Trade. International trade agreements of different countries are primarily governed by the World Trade Organization. According to the World Trade Organization (2022), tariffs are customs duties on imported items and raise government revenue. The Uruguay Round has stimulated different countries to bind their customs duties to a level which is hard to increase.

According to the International Trade Administration (n.d.) of the United States, different countries can help the economy of the US to grow. It constantly looks for trade opportunities for both imports and partnerships with other countries and reduces trade barriers for their exports. These are all realized in the World Trade Organization, Free Trade Agreements and Bilateral Treaties.

The UN Trade and Development Board (2017) in Geneva, Switzerland pointed on the strength and weakness of trade activities with different countries. Dwindling trade activities are caused by weak economies that showed recession in the last 10 years, but economic growth for those whose trade activities prospered due to sustainability in production. The sustainable growth in trade, production of goods and transfer thereof to different countries are marked by the sustainability goals of each country by 2030.

2.3 Customs Documentations, Clearance and Procedures. The study of Turbaningsih (2022) defines project logistics as the procedures for moving enormous, highly valuable, and vital cargo that is part of infrastructure projects and requires specialized loading and unloading at several ports. Project cargo logistics planning requires an integrated planning approach that takes into account the following factors: total delivery cost management, end-to-end visibility, transport routing management, variability management, integrated international and domestic workflow, and technical safety consideration. The best-case scenario, which considers the damage's overall logistics cost, delivery time, hazards, and effects, should be used to guide the decision-making process for fleet selection.

On the analysis of activities that generate logistical costs, Delfim et al (2021) posited that supply chain management is inextricably linked to logistical tasks. The planning and integration of material flows, financing, internal product and information flows, and interactions between organizations, from primary suppliers to ultimate consumers, can be summarized as the process of adding value to customers through finished goods and services. Since logistical activity is one of the key components for ensuring client criteria are met, including elevated satisfaction and the standard of customer service.

Due to the dynamics of supply and demand, warehousing plays a vital role in maintaining the availability of goods. Just like the case of Amazon and other companies engaged in online sales, warehouses are now digitalized and increasingly automated. Robots are sometimes used in warehouses to select items off the shelves. Employees at other warehouses select merchandise using voice-activated headsets. The employees speak with a computer through the headsets, which instructs them on where to go and what to
take from the shelves. The personnel can choose things more precisely as a result than they could by glancing at a piece of paper or a computer screen.

2.4 Customs Laws, Rules, Regulations, Ethics and Customs Broker Practices. The role of customs administration in each country revolves around international trade and is founded in the three elements on economic, security and protection and fiscal matters (Montagnat-Rentier, n.d.). “Customs laws determine the customs duties to be imposed on imported items entering a country to protect the local goods from the effects of the entry of imported goods into a country.” Customs duties include dumping duties, countervailing duties, marking duties, and others. Hence, all countries around the world make use of customs duties to protect their own goods along with an effective collection of revenue and preventing the illegal entry of goods within the territory of a state. Just like the Philippines, the customs department or bureau in other countries protect the ports of entry and ports of exit because the entry of illegal items can also take place in ports of entry (airports and seaports).

2.5 Tariff Classification and Practical Computations. The Economic Times (2023) defines customs duty as imposed tax on export and import. Further, the computed rates are either based on the value (ad valorem) of the goods or specific (per item). Hence, the value to be collected depends on the tariff and customs laws of every country or state.

2.6 Customs Broker Licensure Examination refers to the examination administered by the PRC for the graduates of BSCA to acquire license and be eligible in the practice of their profession and covers the following subject areas: customs laws, rules, regulations, ethics and customs broker practices; customs documentations, clearance and procedures; tariff laws, rules and regulations and international trade; and tariff classification and practical computations.

In the study of Gabasa (2021), the success of the graduates in securing their license with PRC reflects how effective the academic institution and the quality of education imparted. High performance of some schools shows the opposite in the trend that the annual passing percentage decreases. This is left as a challenge to every school and to the graduates they will produce. Based on the records from Professional Regulations Commission in the last five years, the results of the CB licensure examination in 2022 reveal that 873 out of 1879 or 46.46% passed the examination; 282 out of 821 or 34.35% passed in in 2021; no exams were held in 2020; 1,166 out of 2,909 or 40.08% made it in 2019; and in the licensure exam. And in 2018, 1,266 out of 2,478 or 51.09% passed. Schools still strive hard to help and prepare their students in taking the exams.

In the 2022 CB licensure examination, several schools are ranked based on the top 10 examinees. However, the top performing schools based on the passing percentage for both first takers and repeaters are below 50% and others even got zero passing rate. Asian Institute of Management has an overall passing rate of 52.63% or 10 out of 19 passed the examination: 62.50% for the first takers or five (5) out of three (3) passed; and 45.45% for the second takers or five (5) out of six (6) passed the examination (prc.gov). The study of Bongalosa, Formanes and Gabito (2021) revealed that high academic performance is an indicator that the examinees passed in all the components or areas of the examination. It was also revealed that academic performance is significantly related to licensure performance, where the results also revealed that academic performance is a determinant in passing the CB licensure examination. Therefore,
the Institution could predict that the better the academic performance of students, the greater the possibility to pass the exam.

Poor academic performance suffices lower possibility of passing the examination or vice versa. According to Estrada (2022), the GPA predicts board rating by 37.6%; therefore, 62.4% predictors remain unknown. But for Pacis, Fontanilla, Panopio, and Concepcion (2020) mentioned that it may be attributed to the commitment of the institution to conform to the CMO requirements and the rigors of accreditation. For Cabanban (2017), the study on academic performance and licensure examination reveals that majority of the graduates with satisfactory academic performance in professional subjects but barely satisfactory with the licensure examination. Substantial correlation between academic performance and licensure examination results has also been revealed.

2.7 Tariff Laws, Rules and Regulations, and International Trade. R.A. No. 1464, otherwise known as the Tariff and Customs Code of the Philippines is the legal basis of tariff laws and customs duties. Tariff rates and customs duties are impositions that aim to protect local products. The value imposed by the Bureau of Customs under the Tariff and Customs Code is relative. As a rule, “imported manufactured goods competing with locally produced goods face higher tariffs than those without local competition” (Tariff Commission, 2022).

Through R.A. No. 10863 of 2016, customs and tariff administration were modernized for the state to protect and enhance government revenue, institute fair and transparent customs and tariff management that will efficiently facilitate international trade, prevent, and curtail any form of customs fraud and illegal acts, and modernize customs and tariff administration (Section 101). International trade agreements govern the flow of goods from one country to another. Trading partners are bound by their agreement to comply with the other party. According to Taningco (2019), it is feasible to create effective trade and investment policies as a result, which relate to inclusive development and growth. Findings indicate that the Philippines needs to optimize the economic benefits and reduce the associated economic expenses with increased membership in and improved global trade in products and services higher FDI flows and volatility, bilateral and regional FTAs, and a more tolerant atmosphere for trading and investing.

2.8 Customs Documentations, Clearance and Procedures. On cargo handling, Barcode Solutions for Logistics simplified the process of cargo handling operations. The items, quantity, and quality of the received cargo are examined and compared to the receiving cargo list. If there are no issues with the received cargo, the products are placed in the warehouse following the inspection, which may also include an acceptance inspection. The commodities are then stored, and any necessary distribution processing and packaging is done. If the volume is minimal, warehousing and inspection data management can be entered on paper in a ledger, but in most warehouses and logistics facilities that receive a lot of cargo, this is done using handheld computers. On the basis of the information gathered using a handheld computer when the cargo was received and inspected, inventory management can be carried out on cargo from storage until transportation.

Due to the dynamics of supply and demand, warehousing plays a vital role in maintaining the availability of goods.
2.9 Customs Laws, Rules, Regulations, Ethics and Customs Broker Practices. R.A. No. 1464 as amended by R.A. No. 10863 are the sources of tariff and customs laws of the Philippines. On items entering the Philippines, import tariffs are typically levied in the form of an ad valorem tax in compliance with the applicable schedules and classifications. Depending on the trade, import tariffs are imposed on commodities with the exception of some items that can be imported duty-free upon fulfilling specified requirements or formalities, among others, agreements, regional alliances.

2.10 Tariff Classification and Practical Computations. On the interest of national development, prevailing situation, the economy, general welfare, or national security and with the advice of National Economic Council, the President shall increase raise, lower, or eliminate current protective tariff rates if a classification change is required, however in no event shall the increased more than a maximum of one hundred (100%) percent rate of duty ad valorem; impose import quotas and/or forbid any imports put an extra duty on every goods, if necessary. imports never going over ten (10) percent ad valorem necessary. The President may gradually lessen the aforementioned protection. TC's (Tariff Commission) frequent investigations and as advised by the National Economic Development Authority (NEDA). The Tariff and Customs Code provides for the special duties such as, but not limited to the following: anti-dumping duty imposed to prevent foreign goods from being dumped into the country and protect local products; countervailing duty is imposed The balancing obligation which is equivalent to the determined subsidy amount, the Secretary of Trade and Industry shall order, in the case of goods, commodities, or items that are not agricultural, and in the case of agricultural issues, the Secretary of Agriculture on items, commodities, or content relating to an item or commodity, then import the item into the Philippines; marking duty is made on items or container of items coming from abroad by marking in Filipino language to indicate the ultimate purchaser in the Philippines, where such item or container originate; and discriminatory duty is levied as an additional amount to products of other countries that discriminate Filipino products in their territory (Section 34, Tariff and Customs Code).

3. Methodology

3.1 Research Design. Descriptive-correlational research design is used in this study to treat the quantitative data to be gathered. Through descriptive design, descriptive statistics is used in measuring and describing the results of CB licensure examination based on the year administered, and the proportion of those who passed and failed. The difficulty index that will reflect the strength and weaknesses of the graduates in CB licensure examinations will also be determined and described. Correlation analysis measures the relationship of the variables of interest. Significance in the relationship of correlated variables suffices that they affected the performance of the respondents in CB licensure examination which is reflected in the study of Bongalosa, Formanes and Gabito (2021). Significant differences in the performance in CB licensure examination per year will be indicative of the surrounding variables wherein the study of Cahapay (2021) reveals that significant difference exists in the conditional system admission test scores and licensure examination performance of the same respondents. Hence, a comparative approach on the performance of BSCA graduates in the licensure examination per year will provide insights as to where the difference is found.

3.2 Population, Samples and Sampling Technique. Respondents of this study include the BSCA graduates of AIMS from 2013 – 2022 who have taken the customs broker licensure examination. Total
3.3 Research Instrument. The researcher utilized the available data from the compilation of Maritime Business department on the results of CB licensure examination released by PRC from 2013 up to 2022. With this, the researcher-constructed research instrument is a simple inquiry about the grades of BSCA graduates of AIMS in the licensure examination in a given year. It contains the average grade of each examinee and grades in the four subject areas: customs laws, rules, regulations, ethics and customs broker practices; customs documentations, clearance and procedures; tariff laws, rules and regulations and international trade; and tariff classification and practical computations of customs duties and taxes and other charges.

To counter-check the graduates who took the licensure examination, the official list of BSCA graduates was requested from the registrar’s office, and the said requested data was forwarded to the researcher. The veracity of the list of BSCA examinees reflected in the list of graduates from 2013 up to 2022.

3.4 Data Gathering Procedure. Upon approval of this proposed study, a request letter was sent to the registrar to come up with the official list of graduates of BSCA in AIMS from 2013 – 2022. The results of the licensure examinations are provided by the Maritime Business department based on the years covered by this study which were compiled as documentation from the official examination results released by PRC per year. Only those who took the licensure exam are included in this study.

Data Privacy Act is highly observed in this study in order to assure that the gathered information is used in the completion of this study. Any data acquired for this study is exclusive in the furtherance of the purposes or objectives set forth in this current research.

For ethical consideration, this study was approved by CRID. The dean of the Maritime Business department further strengthen that the information within their control is used only for research purposes.

The CB licensure examination results and the names of BSCA graduates of AIMS secured from the respective offices with due control over information or data are likewise compliant with research ethics.

3.5 Statistical Treatment. The following statistical tools are used in this study: Frequency Count and Percentage (%) determined the proportion of those who passed or failed per year, passing rate in each subject area per year and the proportion of the examinees per year and the overall number of BSCA examinees from 2013 up to 2022; Simple Mean or Average ($\bar{x}$) measured the licensure examination grades per subject and overall grade per year; Pearson Product Moment of Correlation ($r_{xy}$) determined the significant relationship between the licensure examination performance and year of examination of BSCA graduates; and One Way Analysis of Variance (ANOVA) determined the significant difference in the licensure examination performance per year and per subject area. IBM-SPSS will be used to facilitate the computations.

Correlation coefficient using Pearson $r$ with significant relationship between the year of examination and results of CB licensure exams show the percentage that such probability will lead into the attainment of the desired outcome with the equivalent coefficient of determination ($R^2$). The significant differences that One Way ANOVA revealed are pointed at the variables where the specific difference lies with a post-hoc test. The research data are purely quantitative and treated with specific statistical tools in analyzing and
interpreting the same. Inferences out of the hypothesis testing rely on measurements which the variables reveal in their continuous form as ratio scale of measurement.

On the subject areas, the $p$ values reveal the strengths and weaknesses of the examinees in each subject area per year based on the difficulty index.

4. Results and Discussions

This study analyzes the performance of BSCA graduates of Asian Institute of Maritime Studies in customs broker licensure examination from 2013 up to 2022. Specifically, it determines the performance of the respondents in customs broker licensure examination on customs laws, rules, regulations, ethics and customs broker practices, customs documentations, clearance and procedures, tariff laws, rules and regulations and international trade, and tariff classification and practical computations; areas of CBLE where the respondents are weak and strong; significant difference between and among the performance of the respondents based on the year of examination; significant relationship between year of examination and the performance of the respondents in their licensure examination; and development plan or program developed to enhance the customs broker licensure examination performance.

Descriptive-correlational research design is used in this study to treat the quantitative data to be gathered. Respondents of this study include the BSCA graduates of AIMS from 2013 – 2022 who have taken the customs broker licensure examination, but the sources of data are the results of the CBLE released by the PRC. Total enumeration is used as sampling technique using a simple researcher-made or constructed research instrument with simple inquiry about the grades of BSCA graduates of AIMS in the licensure examination in a given year on the four subject areas and the general average. Data Privacy Act is highly observed along with research ethics. The following statistical tools are used in this study: Frequency Count and Percentage (%), Simple Mean or Average ($\bar{x}$), Pearson Product Moment of Correlation ($r_{xy}$), Coefficient of Determination ($R^2$), and One Way Analysis of Variance (ANOVA) with Tukey post-hoc test. IBM-SPSS is used to facilitate computations.

As to examinees per year, 2019 has the highest number of examinees (74 or 14.83%) while 2022 has the lowest (19 or 3.81%). Close to the number of examinees in 2019 are 2017 and 2018 where both have 70 (14.03%) each. No CBLE and other licensure exams administered by the PRC in 2020 due to the COVID-19 pandemic, but the resumption in the following year, 2021 or 4.01% took the licensure exams. And as a whole, the total examinees within the covered years of the study reached 499.

The average or mean rating of BSCA examinees from 2013 up to 2022 is 70.34%. This is below the passing rate of 75%. And looking at the average rating per year, it is the 2013 CBLE where the rating is above 75% or 75.36% to be exact. Conversely, 2019 reveals the lowest average rating of the examinees or 64.81%. Close to 75% average includes the average of following examination years: 2014 (73.73%), 2017 (71.64%) and 2021 (70.30%). This is a clear indication of a low passing rate which is not attributed to the number of examinees as the said year has the most CBLE examinees.

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Average ($\bar{x}$)</th>
<th>Examinees ($f$)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>71.42</td>
<td>70.37</td>
<td>68.21</td>
<td>69.42</td>
<td>69.86</td>
<td>19</td>
<td>3.81</td>
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<td>2021</td>
<td>75.25</td>
<td>74.35</td>
<td>68.95</td>
<td>62.65</td>
<td>70.30</td>
<td>20</td>
<td>4.01</td>
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</table>
On subject 1 (customs laws, rules, regulations, ethics and customs broker practices), the average performance rating from 2013 up to 2022 is 73.19%, higher than the other three subjects. This is because four out of nine inclusive years reveal an average rating greater than 75%, such as 2014 (78.14%) and also the highest in this category, 2013 (78.11%), 2017 (77.86%) and 2021 (75.25%). However, 2015 reveals the lowest average rating of 66.03%. This board subject is based on the provisions of the Customs Brokers Act of 2004” in the Philippines. The said act aims to regulate the customs brokers profession in the Philippines. This creates the Professional Regulatory Board for Customs Brokers, and allocates funds for the implementation of its activities and initiatives. Aside from the Customs Brokers Act of 2004, the board subject also covers the new Code of Ethics and Code of Technical Standards for Customs Brokers as outlined by the Chamber of Customs Brokers, Inc., which is the accredited professional organization (APO) for customs brokers professionals (PRC, 2015)

On subject 2 (customs documentations, clearance and procedures), the average rating is likewise below 75% or 71.90% for the inclusive years of CBLE. Only 2014 had the passing average rate of 77.92% while the lowest is 2019 (64.04%). Majority of the averages per year are near the 75% passing rate: 2021 (74.35%), 2018 (72.96%), 2015 (72.31%), 2013 (70.89%), 2016 (70.45%), and 2022 (70.37%).

On subject 3 (tariff laws, rules and regulations and international trade), the average rating is 69.39%. However, the highest average rating is in 2013 (80.71%) and also the highest among all the subjects. Conversely, 2018 has the lowest rating of 65.33%. Since 2015, the average ratings in this subject area are below 70%, and only 2013 and 2014 (72.26%) have higher than 70% average. This board subject is based on the provisions of the Customs Modernization and Tariff Act (CMTA). The CMTA adds on the existing provisions of Tariff and Customs Code of the Philippines (TCCP). This amendment aims to modernize customs rules/ regulations to expedite trade, reduce corruption, improve delivery of customs service, and enhance the supply chain (DOF, 2016)

On subject 4 (tariff classification and practical computations), the average is 66.89% and evidently the lowest among the four subject areas. Year 2013 reveals the highest rating of 71.74% and closely followed by 2017 (70.46%). The lowest rating in this subject area is revealed in 2019 at a plunging rating of 56.88%. This is also the lowest compared to all the ratings per subject area and per year of examination. Aside from the previously mentioned courses, this is also governed by the Customs Modernization and Tariff Act (CMTA). This course involves the identification of the rate of duty that will be applied to a specific product. This also involves looking up the appropriate tariff code for the product using the Philippine Tariff Finder. Then applying the rate of duty specified for that tariff code.

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
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<td>64.04</td>
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<td>56.88</td>
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<td>2018</td>
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<td>2017</td>
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<td>2016</td>
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<td>70.45</td>
<td>67.34</td>
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<tr>
<td>2015</td>
<td>66.03</td>
<td>72.31</td>
<td>67.30</td>
<td>65.73</td>
</tr>
<tr>
<td>2014</td>
<td><strong>78.14</strong></td>
<td><strong>77.92</strong></td>
<td>72.26</td>
<td>66.61</td>
</tr>
<tr>
<td>2013</td>
<td>78.11</td>
<td>70.89</td>
<td><strong>80.71</strong></td>
<td><strong>71.74</strong></td>
</tr>
</tbody>
</table>
| Average | **73.19** | **71.90** | **69.39** | **66.89** | **70.34** | **N=499** | **100.00***
On the average ratings of the examinees per year of examination, 2014 reveals the highest proportion of successful examinees (38 or 57.58%) and those who failed (28 or 42.42%) while 2019 reveals higher proportion for failed (53 or 71.62%) examinees than those who passed (21 or 28.38%). But 2017 reveals more passers (39 or 55.71%) than failures (31 or 44.29%), and also in the recent licensure exams last year where 10 (52.63%) passed and nine (47.37%) failed. With this, the data implies that the passers may gain the upper hand provided that the examinees will be thoroughly prepared before taking the examination.

On specific subject areas, the data for subject 1 reveals a higher proportion of passers than failures in customs laws, rules, regulations, ethics and customs broker practices in the following years: 2013 (30 or 54.55%), 2014 (49 or 74.24%), 2017 (53 or 75.71%), 2019 (49 or 66.22%), 2021 (13 or 65.00%), and 2022 (11 or 57.89%). Subject 2 also provides for a higher proportion of passers than failures in the following years: 2014 (47 or 71.21%), 2015 (36 or 53.73%), 2016 (33 or 56.90%), 2018 (39 or 55.71%), 2021 (13 or 65.00%), and 2022 (11 or 57.59%). It shows that six out of nine years of examination that more examinees passed in customs documentations, clearance and procedures that those who failed, just like subject 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P / %</td>
<td>F / %</td>
<td>P / %</td>
<td>F / %</td>
<td>P / %</td>
</tr>
<tr>
<td>2022</td>
<td>19</td>
<td>11 57.89</td>
<td>8 42.11</td>
<td>11 57.89</td>
<td>8 42.11</td>
<td>11 57.89</td>
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<tr>
<td></td>
<td></td>
<td>10 52.63</td>
<td>9 47.37</td>
<td></td>
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<tr>
<td>2021</td>
<td>20</td>
<td>13 65.00</td>
<td>7 35.00</td>
<td>13 65.00</td>
<td>7 35.00</td>
<td>13 65.00</td>
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<td></td>
<td></td>
<td>13 65.00</td>
<td>7 35.00</td>
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</tr>
<tr>
<td>2019</td>
<td>74</td>
<td>49 66.22</td>
<td>25 33.78</td>
<td>49 66.22</td>
<td>25 33.78</td>
<td>49 66.22</td>
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<tr>
<td></td>
<td></td>
<td>39 55.71</td>
<td>30 44.29</td>
<td>39 55.71</td>
<td>30 44.91</td>
<td>39 55.71</td>
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<td>39 55.71</td>
<td>30 44.29</td>
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<td>2018</td>
<td>70</td>
<td>53 75.71</td>
<td>24 29.31</td>
<td>53 75.71</td>
<td>24 29.31</td>
<td>53 75.71</td>
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<td></td>
<td>52 74.24</td>
<td>24 29.31</td>
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<td>39 55.71</td>
<td>30 44.29</td>
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<tr>
<td>2017</td>
<td>70</td>
<td>53 75.71</td>
<td>24 29.31</td>
<td>53 75.71</td>
<td>24 29.31</td>
<td>53 75.71</td>
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<td>24 29.31</td>
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<td>23 30.00</td>
<td>56 90.00</td>
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<td>56 90.00</td>
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<td>33 56.90</td>
<td>23 30.00</td>
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<td>23 26.00</td>
<td>49 74.24</td>
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<td>36 53.73</td>
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</tr>
<tr>
<td>2014</td>
<td>66</td>
<td>59 69.09</td>
<td>19 30.91</td>
<td>59 69.09</td>
<td>19 30.91</td>
<td>59 69.09</td>
</tr>
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<td>39 59.09</td>
<td>19 30.91</td>
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<td>39 59.09</td>
<td>19 30.91</td>
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<td>2013</td>
<td>55</td>
<td>54 55.55</td>
<td>14 44.45</td>
<td>54 55.55</td>
<td>14 44.45</td>
<td>54 55.55</td>
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<td></td>
<td></td>
<td>38 69.09</td>
<td>14 44.45</td>
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<td></td>
<td></td>
<td>38 69.09</td>
<td>14 44.45</td>
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</tr>
</tbody>
</table>

Subject 3 and subject 4 shows the opposite since both have only three out of nine examination years with more passers than failures. Thus, tariff laws, rules and regulations and international trade have a higher proportion of passers in 2013 (38 or 69.09%), 2014 (39 or 59.09%), and 2017 (39 or 55.71%) compared to failures. For tariff classification and practical computations, more passers are seen in 2017 (37 or 52.86%), 2018 (38 or 54.29), and 2022 (11 or 57.89%).
The subject areas of the licensure examination per year are mostly within the difficulty index of 0.40 - 0.79 or Moderately Difficult and Moderately Easy. Hence, they are Moderately Weak and Moderately Strong.

**Table 3 Strengths and Weaknesses in Subject Areas**

<table>
<thead>
<tr>
<th>Year</th>
<th>Examinees</th>
<th>Subject 1 Diff. Index (p)</th>
<th>Subject 2 Diff. Index (p)</th>
<th>Subject 3 Diff. Index (p)</th>
<th>Subject 4 Diff. Index (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>19</td>
<td>.579</td>
<td>.579</td>
<td>.421</td>
<td>.579</td>
</tr>
<tr>
<td>2021</td>
<td>20</td>
<td>.650</td>
<td>.650</td>
<td>.400</td>
<td>.100</td>
</tr>
<tr>
<td>2019</td>
<td>74</td>
<td>.662</td>
<td>.284</td>
<td>.351</td>
<td>.176</td>
</tr>
<tr>
<td>2018</td>
<td>70</td>
<td>.443</td>
<td>.557</td>
<td>.329</td>
<td>.543</td>
</tr>
<tr>
<td>2017</td>
<td>70</td>
<td>.757</td>
<td>.414</td>
<td>.557</td>
<td>.529</td>
</tr>
<tr>
<td>2016</td>
<td>58</td>
<td>.500</td>
<td>.569</td>
<td>.362</td>
<td>.414</td>
</tr>
<tr>
<td>2015</td>
<td>67</td>
<td>.313</td>
<td>.537</td>
<td>.403</td>
<td>.373</td>
</tr>
<tr>
<td>2014</td>
<td>66</td>
<td>.742</td>
<td>.712</td>
<td>.591</td>
<td>.379</td>
</tr>
<tr>
<td>2013</td>
<td>55</td>
<td>.546</td>
<td>.273</td>
<td>.691</td>
<td>.364</td>
</tr>
</tbody>
</table>

The data reveals that the strengths of the examinees are moderate and almost near the next level in subject 1 or customs laws, rules, regulations, ethics and customs broker practices in 2014 (.742), 2017 (.757), 2019 (.662), and 2021 (.650). In subject 2 or customs documentations, clearance and procedures, 2014 (.712) and 2021 (.650) are likewise moderately strong. Tariff laws, rules and regulations and international trade (subject 3) shows moderate strength in 2013 (.691). But tariff classification and practical computations (subject 4) reveals no strength based on the difficulty indices. This means that the examinees revealed moderate strengths in most CBLE under subject 1 since 2013 up to 2021; twice under subject 2 in 2014 and 2021; once under subject 3 in 2013; and none under subject 4.

On the weaknesses of the examinees, the difficulty indexes reveal that subject 1 is the weakness in 2015 (.313) because the exam was really difficult. Subject 2 is the weakness in 2013 (.273) and 2019 (.284). In 2016 (.362), 2018 (.329) and 2019 (.351), subject 3 is the weakness of the examinees. But in subject 4, the exam results reveal that 2013 (.364), 2014 (.379) and 2015 (.373) CBLE indicate it as the weakness. In the same subject, 2019 (.176) and 2021 (.100) exams reveal it as their weakest subject area as the examinees consider it as the most difficult among the 4 subject areas.

**Table 4 Significant Difference in CBLE Results Based on Year of Examination**

<table>
<thead>
<tr>
<th>CBLE Subject Areas</th>
<th>df</th>
<th>Computed F-Value</th>
<th>Sig.</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1 - Customs laws, rules, regulations, ethics and customs broker practices</td>
<td>498</td>
<td>7.932</td>
<td>&lt;.001</td>
<td>Reject Ho₁</td>
</tr>
</tbody>
</table>
On subject 1, the ratings of the examinees on customs laws, rules, regulations, ethics and customs broker practices are significantly different since the significance is <.001 level. Hence, the hypothesis is rejected since the CBLE results in subject 1 significantly differ from year to year. Just like subject 1, subject 2, 3 and 4 are found to be significantly different as to the results every examination year since the computed F-value is greater than its tabular value or the significance is less than .001. The results are significantly different every year on customs documentations, clearance and procedures, tariff laws, rules and regulations and international trade, and tariff classification and practical computations. Hence, the hypothesis is rejected since the CBLE results in subjects 2, 3 and 4 significantly differ from year to year.

Table 5 Significant Relationship between Year of Examination and CBLE Subject Areas

<table>
<thead>
<tr>
<th>CBLE Subjects</th>
<th>Correlation Coefficient (rxy)</th>
<th>Coefficient of Determination (R²)</th>
<th>Sig.</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>-0.019</td>
<td>1.90</td>
<td>.335</td>
<td>Accept Ho²</td>
</tr>
<tr>
<td>Subject 2</td>
<td>-0.081*</td>
<td>8.10</td>
<td>.035</td>
<td>Reject Ho²</td>
</tr>
<tr>
<td>Subject 3</td>
<td>-0.177**</td>
<td>17.70</td>
<td>&lt;.001</td>
<td>Reject Ho²</td>
</tr>
<tr>
<td>Subject 4</td>
<td>-0.046</td>
<td>4.60</td>
<td>.153</td>
<td>Accept Ho²</td>
</tr>
</tbody>
</table>

The results of the correlation analysis reveal that the year of examination and subject 2 (rxy=-0.081) and subjects 3 (rxy=-0.177) are significantly related. On subject 2, it is found to be significant with the year of examination at .05 level. The negative correlation coefficient means that going back on the years of examination will cause an increase in the CBLE ratings for subject 2, an inversely proportional relationship. The coefficient of determination predicts the outcome of the CBLE results at 8.10% probability. Hence, the strength of the model shows that 8.10% of the data fit the regression model. The computed correlation coefficient is greater than its tabular value at .035 level. Hence, the hypothesis is rejected.

On subject 3, the correlation analysis reveals that it significantly related with the year of examination. The negative correlation coefficient suffices an inversely proportional relationship, where increase in the year of examination will cause a decrease in the exam ratings. The coefficient of determination predicts the outcome of subject 3 at 17.70% probability, and 17.70% of the data fit the regression model in terms of its strength. The computed correlation coefficient is greater than its tabular value at .035 level. Hence, the hypothesis is rejected.

On subject 1 and 4 are not significantly related with the year of examination since the computed correlation coefficient of Pearson r is less than the tabular value at .05 level. Hence, the
hypothesis is accepted. Customs laws, rules, regulations, ethics and customs broker practices and tariff classification and practical computations do not depend on the year of examination.

4.1 Recommendations

1. The results of the licensure examination of BSCA graduates of AIMS in CBLE must be improved. Preparations for the CBLE depends on the examinee and the results reflect the commitment of AIMS in imparting knowledge, honing student’s skills traits and character, and instilling the core values of the institution. As such, the school, particularly the School of Maritime Business should devise an effective and progressive scheme towards student development.

2. The School of Maritime Business must focus on the weaknesses of examinees that this study found out, including the moderately weak areas. Subject 4 or tariff classification and practical computations is found to be the weakest subject for AIMS BSCA examinees. Hence, it must be emphasized and given more attention in classroom discussions and activities, and the course subjects falling within this subject area should be intensified in review sessions more than the other three subject areas.

3. The results of CBLE or performance of AIMS BSCA graduates significantly differ yearly. However, a program of activities, enhancements, reviews, mock and qualifying exams or assessments are important tools in preparing the students in their forthcoming licensure exams. A compilation of sample exam questions and their suggested answers, review materials, compendium, etc. are helpful to the examinees. SMB can be of assistance to them.

4. The subject areas on customs documentations, clearance and procedures, and tariff laws, rules and regulations and international trade are significantly related with the year of examination. These CBLE areas are procedural and changes from time to time. The practical side of the profession is linked with these subject areas, with constant dynamism and changes. Faculty members with expertise on this need to keep abreast with the current issues and trends that can be cascaded to the roster of BSCA faculty members.

5. The Development Plan for BSCA Licensure Examination should be considered as a derivative of the results of the study. The end goal of the activities and strategies included therein is the long term goal leading to 100% passing rate. As an action plan in itself, it can be used in honing BSCA skills from the moment a student steps into the domain of AIMS. The activities and strategies will work to both students and the institution.

6. More research is recommended on this topic for further and in-depth analysis with more variables as predictors such as, but not limited to the student’s GWA, GPA, scholastic performance is minor and major subjects, student demographics, institutional development and student training, among others.

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