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|  | *METEOR STIP MARUNDA* |
| ISSN : 1979 – 4746  EISSN : 2685 - 4775 | ***JURNAL PENELITIAN ILMIAH***  ***SEKOLAH TINGGI ILMU PELAYARAN*** |

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| PREFERENCES OF STUDENT OFFICERS IN CHOOSING A SEAFARING EDUCATION AND TRAINING INSTITUTION  Achmad Bashori 1) bashoripij@gmail.com  Suhartini 2) ghina.adityas@gmail.com  Inayaturrobbany 3) [Inayaturrobbany@gmail.com](mailto:Inayaturrobbany@gmail.com)  Asman Ala 4) asmanaufal2003@gmail.com    *1234 Sekolah Tinggi Ilmu Pelayaran (STIP) Jakarta* |

***Abstract***

*Knowledge of the preferences of student officers in choosing a shipping education and training institution is very important because it is closely related to the income of a shipping education and training institution. The more student officers (pasis) who register automatically increase their income as well. Some combined attributes of product variables and service variables that are the preferences of pasis in choosing a shipping education and training institution are in order (1) Teaching Staff, (2) Campus Location, (3) Education Costs, (4) Duration of Certificate Issuance, (5) Learning Methods, (6) Campus Physical Conditions, (7) Campus Accreditation, (8) Friendliness of Officers, (9) Ease of Website Access, (10) Response to Customer Complaints, (11) Campus Reputation, (12) Laboratory Facilities, (13) Alumni. Based on the utility value, all attributes of the product variable (Teaching Staff, Campus Location, Tuition Fees, Learning Methods, Physical Campus, Campus Accreditation, Campus Reputation, Laboratory Facilities, Alumni) affect the students' preferences in choosing a college / shipping education and training institution, while the service variable is only the duration of certificate issuance which affects the students' preferences in choosing a college / shipping education and training institution while officer friendliness, speed of handling customer complaints and speed of website access do not affect it.*

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| *Keywords: Student Officers, Preferences, Education Costs, Certificates, Learning Methods* |

1. **INTRODUCTION**

The role of Colleges and Training Institutions under the Ministry of Transportation as a Public Service Agency (BLU) is very important in improving customer-oriented services and meeting revenue targets. The current condition is that many universities and shipping training institutions, both government and private, organize seafarer competency and skills training so that a good marketing strategy is needed in order to increase revenue from academic services, especially education and training to increase competence and seafarer technical education and training.

Student Officers (Pasis) are officers on board ship who must undergo a series of intensive training to prepare them to become higher officers on the ship. This training involves aspects of Theory and Practice such as navigation, ship management, communication, security, and other technical skills. The training for student officers starts from ANT V to ANT I for officers on the ship's deck, and ATT V to ATT I for officers in ship machinery.

Understanding the preferences of student officers is critical to developing effective marketing strategies to attract more enrollment in maritime training programs. Preferences are utility values that describe things that are liked or disliked or things that are chosen or not chosen by consumers in adopting or consuming a product (Saefurahman et al., 2023). To find out which ones are chosen and which ones are not chosen, we can see the utility value of each level of attributes used. The attribute level with the most significant utility value in an attribute means that respondents prefer that attribute level. In other words, the highest utility value at the attribute level for each attribute indicates the most chosen by consumers. Conversely, the smallest utility value indicates the least chosen by consumers.

There are product variables and service variables in understanding the preferences of student officers (Pasis). Product variables consist of campus physical conditions, campus reputation (Lusianti & Santoso, 2023), campus accreditation, campus facilities, tuition fees, promotions, campus location (Na & Hipertensiva, n.d.), references, promotions, campus facilities, tuition fees, residential distance, accreditation, study programs (Saefurahman et al., 2023), campus credibility, campus facilities, campus location, student characteristics, influential people and marketing (Edirisinghe et al., 2017). While the service variable consists of procedures on campus, the benefits obtained (Edirisinghe et al., 2017).

**Research Gap.**

The research gap from this research with previous research can be seen from the following table.

Table 1. Research Gap

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Atribut | Dina Lusianti dan Ignatius H.S (2023) | Nurwahdania, dkk (2022). | Asep Saefurahman, dkk (2023) | L. Edirisinghe et al (2016) | Achmad Bashori, dkk |
| Financial Support | v |  |  |  |  |
| Physical Condition | v |  |  |  | v |
| Reputation | v |  |  |  | v |
| Reference | v |  | v | v |  |
| Accreditation |  | v | v | v | v |
| Facilities |  | v | v | v | v |
| Education Costs |  | v | v |  | v |
| Promotion |  | v | v | v |  |
| Location |  | v | v | v | v |
| Maritime Technology Special Program |  |  | v |  |  |
| Procedure |  |  |  | v |  |
| Benefits |  |  |  | v |  |
| Student Characteristics |  |  |  | v |  |
| Learning Methods |  |  |  |  | v |
| Teaching Personnel |  |  |  |  | v |
| Alumni |  |  |  |  | v |
| Certificate Issuance |  |  |  |  | v |
| Friendliness |  |  |  |  | v |
| Complaint Handling |  |  |  |  | v |
| Website Access |  |  |  |  | v |

1. **RESEARCH METHOD**

This research is a quantitative study with data collection methods using questionnaires with the sample being student officers (pasis). The sampling technique was purposive random sampling with a total sample of 284 student officers from universities and shipping education and training institutions owned by the Ministry of Transportation while the analysis technique used conjoin analysis.

The method of data collection is that each respondent is given 32 stimuli from a combination of attributes and then asked to rate from 1 to 10, where number 1 is the lowest value / disliked and number 10 is the highest value / most preferred. The concept of this research can be described as follows.

Physical Condition

Campus Reputation

-Luxury

-Beautiful

-Large

-International

-National

Accreditation

-Excellent

-Very Good

-Good

Education Costs

-Expensive

-Reachable

-Cheap

Location

-Easily Accessible

-Near the Boarding House

-Near where you live

Laboratory Facilities

-Laboratory Deck/Engine

-Simulator Deck/Engine

Learning Methods

-Online

-Offline

-Mixed

Teaching Personnel

-Active Seafarers

-Postgraduate

-Diploma IV

Alumni / Graduates

- Working in a Foreign Company

- Working in a National Company

Certificate Issuance

- < 3 Days

- 3 – 7 Days

- 7 – 14 Days

Friendliness

-Friendly

-Not Friendly

Complaint Handling

-Responsive

-Not Responsive

Website Access

-Easy

-Difficult

Preferences Of Student Officers In Choosing A Seafaring Education And Training Institution

*Figure 2.1: Conceptual model of students' preferences for choosing a university or vocational training institution based on product and service choices.*

1. **ANALYSIS AND DISCUSSION**

Based on the results of descriptive data processing, the following characteristics of respondents were obtained :

*Table 4.1 Respondent Data Based on Place of Study / Training*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Higher Education / Seafaring Education and Training Institution** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | BP2TL | 88 | 31.0 | 31.0 | 31.0 |
| BP3IP | 5 | 1.8 | 1.8 | 32.7 |
| Lainnya | 18 | 6.3 | 6.3 | 39.1 |
| Poltekpel Banten | 113 | 39.8 | 39.8 | 78.9 |
| STIP | 60 | 21.1 | 21.1 | 100.0 |
| Total | 284 | 100.0 | 100.0 |  |

*Source: Data Processing Results*

Based on table 4.1, it can be explained that 31% of respondents came from the Marine Transportation Education and Training Center (BP2TL), 1.8% came from the Center for Refresher Education and Improvement of Shipping Science (BP3IP), 39.8% came from Banten Shipping Polytechnic, 21.1% of respondents came from the Maritime Higher Education Institute (STIP) and 6.3% came from other shipping schools.

*Table 4.2 Respondent data based on seafarer competency level*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Seafarer Skill Level** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | ANT/ATT I | 75 | 26.4 | 26.4 | 26.4 |
| ANT/ATT II | 16 | 5.6 | 5.6 | 32.0 |
| ANT/ATT III | 35 | 12.3 | 12.3 | 44.4 |
| ANT/ATT IV | 81 | 28.5 | 28.5 | 72.9 |
| ANT/ATT V | 77 | 27.1 | 27.1 | 100.0 |
| Total | 284 | 100.0 | 100.0 |  |

*Source: Data Processing Results*

Based on table 4.2, it can be explained that 26.4% of respondents are ANT/ATT I student officers, 5.6% are ANT/ATT II student officers, 12.3% are ANT/ATT III student officers, 28.5% are ANT/ATT IV student officers and 27.1% are ANT/ATT V student officers.

The results of conjoin analysis of all respondents can be seen in table 4.3, namely the constant value of (2.063). At the Physical Campus attribute, student officers tend to place more importance on Physical Luxury with a utility value of (0.005) when compared to the other two attribute levels, namely Physical Beauty and Area. At the Campus Reputation attribute, the highest utility value at the National Reputation level is (0.004), when compared to the International Reputation level. At the Campus Accreditation attribute, student officers are more concerned with Very Good Accreditation with a utility value of (0.003) when compared to the other two attribute levels, namely Excellent and Good Accreditation. At the Tuition Fees attribute, student officers prefer Expensive Tuition Fees with a utility value of (0.05) when compared to the other two attribute levels, namely Cheap and Affordable Tuition Fees. At the Campus Location attribute, student officers prefer Campus Locations that are easily accessible with a utility value of (0.023) when compared to other attribute levels near residences and boarding houses.

*Table 4.3 Utility Level Value of Each Attribute*

|  |  |  |  |
| --- | --- | --- | --- |
| **Utilities** | | | |
|  | | Utility Estimate | Std. Error |
| Physical | Luxury | .005 | .017 |
| Beautiful | -.008 | .020 |
| Large | .003 | .020 |
| Reputation | International | -.004 | .013 |
| National | .004 | .013 |
| Accreditation | Excellent | -.001 | .017 |
| Very Good | .003 | .020 |
| Good | -.001 | .020 |
| Costs | Expensive | .050 | .017 |
| Reachable | -.031 | .020 |
| Cheap | -.019 | .020 |
| Location | Easily to Accessible | .023 | .017 |
| Near the Boarding House | -.042 | .020 |
| Near where you live | .019 | .020 |
| Laboratory | Simulator Deck/Engine | -.001 | .013 |
| Laboratory Deck/Engine | .001 | .013 |
| Learning | Online | -.020 | .017 |
| Offline | .001 | .020 |
| Mixed | .020 | .020 |
| Certificate | 1-3 Days | -.018 | .017 |
| 4-7 Days | .023 | .020 |
| 7-14 Days | -.005 | .020 |
| Teaching Personnel | Active seafarers | -.017 | .022 |
| Postgraduate | -.001 | .022 |
| Diploma IV | .036 | .022 |
|  |  |  |
| Alumni | Working in a Foreign Company | -.019 | .013 |
| Working in a National Company | .019 | .013 |
| Friendliness | Friendly | -.099 | .013 |
| Not Friendly | .099 | .013 |
| Complaint Handling | Responsive | -.059 | .013 |
| Not Responsive | .059 | .013 |
| Website access | Easy | -.074 | .013 |
| Difficult | .074 | .013 |
| (Constant) | | 2.063 | .016 |

*Source: Data Processing Results*

At the Laboratory Facilities attribute, the highest utility value is at the level of ownership of Deck and Engine Laboratory Facilities rather than ownership of Deck and Engine Simulator Laboratory Facilities, namely (0.001) At the Learning Methods on Campus attribute, the highest utility value is at the level of Mixed Offline and Online Learning, namely (0.02). At the Teaching Staff attribute, student officers prefer Diploma IV Graduate Teaching Staff with a utility value of (0.036) when compared to other attribute levels, namely Postgraduate Graduate Teaching Staff and Active Seafarers. At the Alumni attribute, student officers prefer Alumni who work in national companies compared to working in foreign companies with a utility value of (0.019). At the Certificate Issue Duration attribute, student officers prefer 4-7 days with a utility value of (0.023) when compared to other attribute levels, namely 1-3 days and 7-14 days. At the Officer Friendliness attribute, student officers prefer Unfriendly Officers compared to Friendly Officers with a utility value of (0.099). At the Complaint Handling attribute, student officers prefer Unresponsive Officers compared to Responsive Officers with a utility value of (0.059). At the Access to Website attribute, student officers prefer Access to Website Difficult compared to Access to Website easy utility value of (0.074).

Based on the utility value above, all product variables attributes (Physical Campus, Campus Reputation, Campus Accreditation, Tuition Fees, Campus Location, Laboratory Facilities, Learning Methods, Teaching Staff, Alumni) affect the preferences of students in choosing a college / shipping education and training institution, While the service variable is only the duration of the issuance of certificates that affect the preferences of students in choosing a college / shipping education and training institution, while the attributes of Friendliness of Officers, Handling Complaints, Access to the Website respondents prefer the level of unfriendly, unresponsive, and difficult to access the website or in other words the utility of these attributes does not affect the preferences of choosing a college / shipping education and training institution.

Based on Table 4. 4 The order of importance of attributes that are the preferences of student officers (pasis) in choosing universities / shipping education and training institutions in Indonesia starting from the highest percentage to the lowest percentage, namely Teaching Staff (11.43%), Campus Location (9, 283%), Tuition Fees (9.277%), Duration of Certificate Issuance (9.086%), Learning Methods (9.066%), Physical Condition of Campus (9.045%), Campus Accreditation (8.507%), Friendliness of Officers (7.822%), Ease of Website Access (6.176%), Response to Customer Complaints (6.116%), Campus Reputation (4. 996%), Laboratory Facilities (4.881%), Alumni (4.315%).

The level of importance of the attributes of product variables that influence students' preferences in choosing universities / shipping education and training institutions in order from largest to smallest, namely (Teaching Staff, Campus Location, Tuition Fees, Learning Methods, Physical Campus, Campus Accreditation, Campus Reputation, Laboratory Facilities, Alumni), while the level of importance of service variable attributes in order is the duration of certificate issuance, friendliness of officers, easy website access, responsiveness to customer complaints.

|  |  |
| --- | --- |
| *Table 4.4 Attribute Importance Value*  **Importance Values** | |
| Physical | 9.045 |
| Reputation | 4.996 |
| Accreditation | 8.507 |
| Costs | 9.277 |
| Location | 9.283 |
| Laboratory | 4.881 |
| Learning | 9.066 |
| Certificate | 9.086 |
| Teaching Personnel | 11.430 |
| Alumni | 4.315 |
| Friendliness | 7.822 |
| Complaint Handling | 6.116 |
| Website | 6.176 |
| Averaged Importance Score | |

*Source: Data Processing Results*

Based on Table 4.5, it can be seen that the results of the correlation measurement show a high correlation rate, both pearson's R of (0.966) and kendall's tau of (0.818). therefore the research is considered valid and very strong because the correlation value is greater than 0.5 with a significant level smaller than the real level α = 0.05, namely (0.000). thus the respondent's opinion has high accuracy and the significant test is known to be significant. So it can be concluded that there is a high accuracy test on the conjoin process.

*Table 4.5 Correlation values*

|  |  |  |
| --- | --- | --- |
| **Correlationsa** | | |
|  | Value | Sig. |
| Pearson's R | .966 | .000 |
| Kendall's tau | .818 | .000 |
| a. Correlations between observed and estimated preferences | | |

*Source: Data Processing Result*

1. **CONCLUSION**

Based on the results of the analysis and discussion above, the following conclusions can be drawn:

1. Thirteen attributes from a combination of two product variables and service variables used in this study form respondents' preferences in choosing a shipping education and training college/institution, where the importance of each attribute varies from smallest to largest. The order of importance value from largest to smallest of the thirteen attributes are (1) Teaching Staff (11.43%), (2) Campus Location (9.283%), (3) Education Costs (9.277%), (4) Duration of Certificate Issuance (9.086%), (5) Learning Methods (9.066%), (6) Physical Condition of Campus (9.045%), (7) Campus Accreditation (8.507%), (8) Friendliness of Staff (7.822%), (9) Ease of Website Access (6.176%), (10) Response to Customer Complaints (6.116%), (11) Campus Reputation (4. 996%), (12) Laboratory Facilities (4.881%), (13) Alumni (4.315%).
2. Utilities that are preferred in choosing to choose a shipping college / education and training institution by respondents for all attributes are: Diploma IV shipping attributes on the attributes of the teaching staff, easily accessible at the attributes of campus location, expensive at the attributes of tuition fees, 4-7 days at the attributes of the duration of the certificate issuance time, a mixture of online and offline at the attributes of learning methods, luxurious at the physical attributes of the campus, very good at the attributes of campus accreditation, unfriendly at the attributes of officer friendliness, difficult at the attributes of easy website access, unresponsive to customer complaint handling attributes, national at the attributes of campus reputation, laboratory decks and engines at the attributes of laboratory facilities, working in national companies at the attributes of alumni.
3. Based on the utility value, the product variable has all its attributes (Teaching Staff, Campus Location, Tuition Fees, Learning Methods, Physical Campus, Campus Accreditation, Campus Reputation, Laboratory Facilities, Alumni) affecting students' preferences in choosing a college / shipping education and training institution, while the service variable is only the duration of certificate issuance which affects students' preferences in choosing a college / shipping education and training institution, While other attributes such as officer friendliness, complaint handling, access to the website, respondents prefer the level of unfriendly, unresponsive, and difficult to access the website or in other words, the utility of these attributes does not affect the preference for choosing a college / shipping education and training institution. This is because most student officers (pasis) choose the same college / shipping education and training institution as the previous college / shipping education and training institution (at the level below), meaning that they already understand the services available at the campus. The attribute of the duration of the certificate issuance is very important to them, because the certificate can be used to improve their position on the ship.

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