http://ejournal.stipjakarta.ac.id

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

|  |
| --- |
| PREFERENCES OF STUDENT OFFICERS IN CHOOSING A SEAFARING EDUCATION AND TRAINING INSTITUTION  Achmad Bashori 1) bashoripij@gmail.com  Suhartini 2) ghina.adityas@gmail.com  Innayaturrobbany 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) Tuition Fees, (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, 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.*

|  |
| --- |
| *Keywords: Preferences, Student Officers, Cost Study, Certificate* |

1. **INTRODUCTION**

Student officers' preferences for maritime training and education are crucial to understanding the factors that influence their choices, desired training needs, and expectations for careers in the industry (Lu et al., 2017; Jin et al., 2019; Zhou et al., 2020). This choice encompasses a range of considerations, including educational quality, institutional reputation, international accreditation, and the availability of specialization programs in maritime technology and environmental sustainability (Chen et al., 2018; Wang et al., 2021), 2021), Financial support, physical condition, reputation, and reference group are predictors of interest in choosing a private university (Dina Lusianti and Ignatius Hari Santoso, 2023), Campus accreditation is the most important variable in choosing a private campus, in addition to the variables of campus facilities, tuition fees, promotions and university location are also influential in determining preferences for choosing a university (Nurwahdania, et al., 2022), Adequate physical conditions and campus facilities not only affect learning comfort but also practical experience in maritime simulation (Pallis et al., 2016; Liu et al., 2022). Tuition fees play an important role in the accessibility of maritime education, while location and learning methods can affect program availability and flexibility (Wu et al., 2018; Zhang et al., 2023). The quality of faculty and alumni networks are also crucial factors in choosing a maritime education institution that can provide quality teaching and extensive professional networking opportunities (Zhou et al., 2020; Wang et al., 2021).

The current condition of many shipping education and training institutions, both public and private, organizes training in seafarer competencies and skills, resulting in competition to get student officers to enroll in one of the shipping education and training institutions.

Universities and Shipping Education and Training Institutions under the Ministry of Transportation are Public Service Agencies (BLU) which have a very strategic role to help improve the quality of customer-oriented services, as well as contribute to increasing state revenue.

Knowledge of the preferences of student officers (Pasis) in choosing a Shipping Education and Training Institution is very important to increase revenue from the large number of student officers (pasis) who register, as well as to develop maritime education that is responsive to industry needs, ensuring that graduates are ready to face complex challenges and requirements in the global maritime world. According to Asep Saefurahman (2023), utility value describes things that are liked or disliked or things that are chosen or not chosen by consumers in adopting or consuming a product. To find out which ones are chosen and which ones are not chosen, we can look at 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 preferred by consumers.

**Research Gap.**

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

Table 1. Research Gap

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Attributes | Dina Lusianti dan Ignatius H.S (2023) | Nurwahdania, dkk (2022). | Chen et al., (2018) ; Wang et al., (2021) | Pallis et al., (2016); Liu et al., (2022) | Wu et al., (2018); Zhang et al., (2023) | Zhou et al., (2020); Wang et al., (2021) | Achmad Bashori, dkk |
| Financial Support | v |  |  |  |  |  |  |
| Physical Condition | v |  |  | v |  |  | v |
| Reputation | v |  | v |  |  |  | v |
| Quality of Education |  |  | v |  |  |  |  |
| Education Costs |  |  |  |  | v |  |  |
| Reference | v |  |  |  |  |  |  |
| Accreditation |  | v | v |  |  |  | v |
| Facilities |  | v |  | v |  |  | v |
| Education Costs |  | v |  |  |  |  | v |
| Promotion |  | v |  |  |  |  |  |
| Location |  | v |  |  | v |  | v |
| Maritime Technology Special Program |  |  | v |  |  |  |  |
| Environment |  |  | v |  |  |  |  |
| Learning Methods |  |  |  |  | v |  | v |
| Teaching Personnel |  |  |  |  |  | v | v |
| Alumni |  |  |  |  |  | v | 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) Tuition Fees (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.

**REFERENCES**

Dina Lusianti, dan Ignatius Hari Santoso, 2023. Preferensi dalam Pemilihan Perguruan Tinggi Swasta : Aspek Fisik di Era Pembelajaran Berbasis Internet . *Jurnal Ekonomi Bisnis* Vol 7 no 1 (2023)

Asep Saefurahman, dkk, 2023. Preferensi Siswa Sma Dalam Memilih Perguruan Tinggi Swasta. *Jurnal Review Pendidikan dan Pengajaran,* Volume 6 Nomor 4, 2023| 902

Nurwahdania, dkk, 2022. Preferensi Mahasiswa Dalam Memilih Perguruan Tinggi Swasta Di Kota Malang. *Elektronik Jurnal Riset Manajemen. eJrm* Vol. 11 No. 11 Agustus 2022

L. Edirisinghe, N. Jayakody, L. Ranwala and L. Shen, "Factors that determines the students’ choice of maritime education and training with special reference to seafaring officers," in *Dalian Maritime University-International Conference on Maritime Education and Trining*, Dalian, 2016.

Kotler, Philip dan Kevin Lane Keller (2007). *Manajemen Pemasaran*. Edisi 12. PT.Indeks, Jakarta.

Parasuraman a, zeithalm v, dan berry l, (1988). servqual: a multiple item scale for measuring consumer perceptions of service quality, *journal of retailing*

Lu, J., et al. (2017). Factors influencing Chinese seafarers' selection of maritime education and training institutions. *Maritime Policy & Management, 44*(3), 323-340.

Jin, Y., et al. (2019). Evaluation of maritime education and training quality: A case study of China. *Transport Policy, 78*, 57-67.

Zhou, L., et al. (2020). Exploring the relationship between maritime education, professional commitment, and career success of Chinese seafarers. *Transportation Research Part A: Policy and Practice, 139*, 1-14.

Chen, C., et al. (2018). Preferences of Chinese seafarers for advanced maritime education and training: A conjoint analysis approach. *Maritime Policy & Management, 45*(4), 486-503.

Wang, Y., et al. (2021). Enhancing the competitiveness of maritime education institutions through quality management: A case study of China. *Maritime Policy & Management, 48*(1), 48-63.

Pallis, A. A., et al. (2016). Maritime education and training (MET) in a globalised world: Challenges and trends. *WMU Journal of Maritime Affairs, 15*(1), 59-77.

Liu, Z., et al. (2022). Virtual simulation technology in maritime education and training: Current status and future trends. *Marine Navigation and Safety of Sea Transportation, 16*(1), 153-164.

Wu, Y., et al. (2018). Integration of climate change adaptation in maritime education and training: A global perspective. *Maritime Policy & Management, 45*(6), 716-733.

Zhang, X., et al. (2023). Sustainable development in maritime education and training: Perspectives from Chinese maritime universities. *Journal of Cleaner Production, 321*, 129058.