Factors Influencing Students in Choosing Private Higher Education
In The City of Medan

Abstract: The very limited number of State Universities is an opportunity for private universities for students who do not qualify for PTN. But in reality there are still many private universities that experience a shortage of students and some have even decreased students continuously for the last five years. This phenomenon occurs not only for private universities that have not been accredited, even private universities that have been well accredited have also experienced a decrease in the number of students. This has become a constant concern for university administrators in order to get out of this problem. So that the purpose of this study is to determine what factors influence student decisions in choosing to study at private universities in the city of Medan. Data were collected by means of a questionnaire to 162 active students at 5 universities who were sampled using a proportional sampling technique based on a sample taken from only one sub population but well known. This study uses a factor analysis method which is carried out on 27 indicators that influence student decisions in choosing to study at private universities in the city of Medan. Based on the results of calculations using factor analysis, there are 27 indicators which are grouped into 6 factors, service, physical evidence, reputation, trust, trust and commitment. Of the six factors, these factors are the most dominant factors in influencing students in choosing private universities in the city of Medan City.

Keywords: Factor Analysis; Student Decisions in Choosing College in The City of Medan

INTRODUCTION

The very limited number of State Universities creates great opportunities for private universities. The private universities was established and even grew so fast when compared to the growth of State Universities. Even now, the number of private universities in Indonesia is more than ten times. Likewise with the development of private universities in North Sumatra Province, especially in the city of Medan.

The Medan is the provincial capital as well as the metropolitan city in North Sumatra Province as well as the surrounding provinces. So it's no wonder the city of Medan is the main attraction for prospective students in studying. There are so many private universities in the city of Medan City with the various advantages they display in attracting prospective students to study at their institutions. Based on data from Region 1 Higher Education Service Institutions in 2019, there are 144 private universities in the city of Medan, consisting of 48 Academies, 9 Polytechnics, 59 High Schools, 4 Institutes and 24 Universities.

A university is a college that provides education in many fields of science, both exact and social, so that the number of students is relatively higher compared to other levels. With 24 universities in the city of Medan, it causes various statuses starting from differences in accreditation, the diversity of study programs offered and the facilities provided by the private universities. From that difference, students must be observant in determining which private universities they will enter. Good accreditation is not a guarantee that it will increase the number of students and even decrease the number of students. Here are some private universities in the form of universities that have experienced a decline in students in the last five years.
Table 1. Private Universities That Have Decreased Number of Active Students in the city of Medan City

<table>
<thead>
<tr>
<th>No.</th>
<th>Private Universities</th>
<th>Year 2014</th>
<th>Year 2015</th>
<th>Year 2016</th>
<th>Year 2017</th>
<th>Year 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Universitas Muhammadiyah</td>
<td>20.694</td>
<td>22.943</td>
<td>17.691</td>
<td>15.668</td>
<td>14.823</td>
</tr>
<tr>
<td>2</td>
<td>Sumatera Utara</td>
<td>8.157</td>
<td>7.615</td>
<td>7.385</td>
<td>6.825</td>
<td>6.014</td>
</tr>
<tr>
<td>3</td>
<td>Universitas Muslim</td>
<td>3.317</td>
<td>3.380</td>
<td>3.308</td>
<td>3.068</td>
<td>2.684</td>
</tr>
<tr>
<td>4</td>
<td>Nusanthara Al-Washliyah</td>
<td>2.244</td>
<td>1.855</td>
<td>1.909</td>
<td>1.788</td>
<td>1.586</td>
</tr>
<tr>
<td>5</td>
<td>Universitas Al Washliyah</td>
<td>2.551</td>
<td>2.183</td>
<td>1.975</td>
<td>1.621</td>
<td>1.251</td>
</tr>
</tbody>
</table>

Source: processed data, 2019

Formulation of the Problem
Based on the background and description developed above, the problems to be studied are formulated as follows:

1. What are the factors that influence students to decide to study at private universities in the city of Medan?
2. Among these factors, which factors have the dominant influence on student decisions to choose to study at private universities in the city of Medan?

Research Purposes
1. To identify and analyze the factors that influence student decisions to choose to study at private universities in the city of Medan.
2. To identify and analyze the factors that have the most dominant influence on student decisions to study at private universities in the city of Medan.

LITERATURE REVIEW AND HYPOTHESES

Consumer Behavior Theory
Consumer behavior is a process that is closely related to the purchasing process. At that time, consumers carry out activities such as searching, researching, and evaluating products. Consumer behavior is the things that underlie consumers to make purchase decisions. What is included in consumer behavior is the quality of the product, the price of the product or service.

According to Mowen and Minor (2009) defines consumer behavior as a study of buying units and exchange processes that involve the acquisition, consumption of various products, services and experiences as well as ideas. According to Lamb, et al (2004) in Sumarwan (2011) states that consumer behavior is the process of a customer in making decisions to buy, use and consume purchased goods and services, including factors that influence purchasing decisions and product use. According to Lawson (2010), consumer behavior is an action that is directly involved in obtaining, consuming and consuming products and services including the decision process that precedes and follows these actions.

Factors That Influence Consumer Behavior
According to Kotler and Keller (2012), consumer purchasing behavior is influenced by cultural, social, personal and psychological factors.

Buying Decision Process
According to Kotler and Keller (2012), the stages that a buyer passes to reach a buying decision pass through five stages, namely: problem recognition, information search, alternative evaluation, buying decisions, and post-purchase behavior.
Hypoteses:
H1: Service factors, physical evidence, reputation, satisfaction, trust and commitment influence student decisions in choosing private tertiary institutions in the city of Medan.

H2: The commitment factor has the most dominant influence on student decisions in choosing private universities in the city of Medan.

Research Method
In this study the researchers took the research locations at five universities, namely: Muhammadiyah University of North Sumatra, Muslim Nusantara University, Dharmawangsa University, Al-Wasliah University and Quality University. Taking the location refers to the research objective to find out and analyze the factors that influence students in choosing private universities in the city of the city of Medan. The choice of research object was because in the last five years the university had decreased students. The research used here is an exploratory research, namely research that explores and analyzes the factors that influence students in choosing private universities in the city of Medan.

Data and Analysis
Data obtained using sampling or survey methods. Surveys are limited to studies in which data are collected from a sample over a population to represent the entire population. In this study, the analyzed students at five universities in the city of Medan City. Primary data were collected using interview techniques and questionnaires. Interviews were conducted with the deans and academic departments of the five sample universities while the questionnaire was given to students who were selected as samples.

Population and Sample
The population of this research is active students at five universities in the city of Medan City at least who have been in college for four semesters, totaling 26,358 people. The sampling technique used accidental sampling, by means of 5 x indicators. The number of indicators in this study was 27, so the sampling was 5 x 27 = 135 samples.

Results and Discussion
Factor Analysis
KMO and Bartlett’s value

<table>
<thead>
<tr>
<th>Table 2. Value of KMO and Bartlett’s Test</th>
</tr>
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<tbody>
<tr>
<td>KMO and Bartlett's Test</td>
</tr>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>

Source: output SPSS, 2020

Table 2 shows that the KMO value is still in the interval 0.5 - 1.0, which is 0.896, and the significance value is 0.000 (<0.05), which means that it can be analyzed further.

Anti Image Correlation

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>MSA</th>
<th>No.</th>
<th>Indicator</th>
<th>MSA</th>
</tr>
</thead>
<tbody>
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<td>1.</td>
<td>Z2.1</td>
<td>.885</td>
<td>15.</td>
<td>X1.9</td>
<td>.872</td>
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<tr>
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<td>16.</td>
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<td>.855</td>
</tr>
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<td>19.</td>
<td>X1.13</td>
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<tr>
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<td>.885</td>
<td>21.</td>
<td>X2.1</td>
<td>.839</td>
</tr>
<tr>
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<td>X1.2</td>
<td>.888</td>
<td>22.</td>
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<td>.840</td>
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<tr>
<td>9.</td>
<td>X1.3</td>
<td>.922</td>
<td>23.</td>
<td>X2.3</td>
<td>.893</td>
</tr>
</tbody>
</table>

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Determination of the Number of Factors

Eigenvalues greater than 1.0 were retained and entered in the model. All eigenvalues are more than 1.0 which means that all factors are included in the model. The eigenvalues can be seen in Table 3.

Table 3. Total Variance Explained

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>% Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>12.105</td>
<td>44.832</td>
<td>44.832</td>
</tr>
<tr>
<td>Factor 2</td>
<td>2.721</td>
<td>10.078</td>
<td>54.910</td>
</tr>
<tr>
<td>Factor 3</td>
<td>1.610</td>
<td>5.962</td>
<td>60.872</td>
</tr>
<tr>
<td>Factor 4</td>
<td>1.350</td>
<td>5.001</td>
<td>65.873</td>
</tr>
<tr>
<td>Factor 5</td>
<td>1.163</td>
<td>4.306</td>
<td>70.179</td>
</tr>
<tr>
<td>Factor 6</td>
<td>1.070</td>
<td>3.964</td>
<td>74.143</td>
</tr>
</tbody>
</table>

Classification of Components into Factors

Factor After Rotation

Table 4. Rotated Component Matrix

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<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component</th>
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</thead>
<tbody>
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<td>1</td>
</tr>
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<td>X1.3</td>
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</tr>
<tr>
<td>X1.2</td>
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<td>X1.6</td>
<td>.691</td>
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<td>X1.1</td>
<td>.674</td>
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<tr>
<td>X1.5</td>
<td>.642</td>
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<tr>
<td>X1.4</td>
<td>.620</td>
</tr>
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<td>X1.7</td>
<td>.528</td>
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<tr>
<td>X2.2</td>
<td>.157</td>
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<td>X2.4</td>
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<td>X2.1</td>
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<tr>
<td>X2.5</td>
<td>.427</td>
</tr>
<tr>
<td>X2.6</td>
<td>.255</td>
</tr>
<tr>
<td>X2.7</td>
<td>-.055</td>
</tr>
<tr>
<td>X3.2</td>
<td>.322</td>
</tr>
<tr>
<td>X3.3</td>
<td>.395</td>
</tr>
<tr>
<td>X3.5</td>
<td>.460</td>
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<tr>
<td>X3.1</td>
<td>.019</td>
</tr>
<tr>
<td>X3.4</td>
<td>.486</td>
</tr>
<tr>
<td>X4.2</td>
<td>.257</td>
</tr>
<tr>
<td>X4.1</td>
<td>.252</td>
</tr>
</tbody>
</table>

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Available Online: https://iarconsortium.org/journal-info/IARJBMM

Source: output SPSS, 2020

Factor Analysis Results

A summary of the loading factors obtained by each indicator can be seen in Table 8. Based on Table 8, factor 1 includes seven indicators, factor 2 includes seven indicators, factor 3 includes five indicators, factor 4 includes three indicators, factor 5 includes three indicators and factor six includes two indicators. Below is a table for all the factors and indicators.

Table 5. Factor Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Indicator</th>
<th>Loading Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service as promised (X1.3)</td>
<td>0.846</td>
</tr>
<tr>
<td></td>
<td>On time service (X1.2)</td>
<td>0.837</td>
</tr>
<tr>
<td></td>
<td>Study travel time on time (X1.6)</td>
<td>0.691</td>
</tr>
<tr>
<td></td>
<td>Services according to student needs (X1.1)</td>
<td>0.674</td>
</tr>
<tr>
<td></td>
<td>Fast service to students (X1.5)</td>
<td>0.642</td>
</tr>
<tr>
<td></td>
<td>The same service to students (X1.4)</td>
<td>0.620</td>
</tr>
<tr>
<td></td>
<td>Scholarships for students who excel (X1.7)</td>
<td>0.528</td>
</tr>
<tr>
<td></td>
<td>Tidy lecture hall (X1.2)</td>
<td>0.878</td>
</tr>
<tr>
<td></td>
<td>Complete learning facilities (X1.4)</td>
<td>0.877</td>
</tr>
<tr>
<td></td>
<td>Cool lecture hall (X1.3)</td>
<td>0.847</td>
</tr>
<tr>
<td></td>
<td>Clean lecture hall (X1.1)</td>
<td>0.828</td>
</tr>
<tr>
<td>2</td>
<td>Clean toilet facilities (X1.5)</td>
<td>0.667</td>
</tr>
<tr>
<td></td>
<td>Clean place of worship (X1.6)</td>
<td>0.531</td>
</tr>
<tr>
<td></td>
<td>Library with complete book collection (X1.7)</td>
<td>0.514</td>
</tr>
<tr>
<td></td>
<td>Various study programs offered (X2.2)</td>
<td>0.787</td>
</tr>
<tr>
<td></td>
<td>Private universities builds good relationships with the environment (X2.3)</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td>Private universities is a good place to work for lecturers (X2.5)</td>
<td>0.720</td>
</tr>
<tr>
<td>3</td>
<td>Good impression during college (X2.1)</td>
<td>0.689</td>
</tr>
<tr>
<td></td>
<td>Private universities is a good place to work for employees (X2.4)</td>
<td>0.621</td>
</tr>
<tr>
<td></td>
<td>This private universities service is in accordance with the expectations of students (X3.2)</td>
<td>0.823</td>
</tr>
<tr>
<td></td>
<td>This private universities service has satisfied students (X3.1)</td>
<td>0.810</td>
</tr>
<tr>
<td></td>
<td>Private universities services are in accordance with the ideal services of students (X3.3)</td>
<td>0.790</td>
</tr>
<tr>
<td></td>
<td>Reprimands for employees who make mistakes in service (X4.1)</td>
<td>0.825</td>
</tr>
<tr>
<td></td>
<td>Guarantee to students while studying (X4.2)</td>
<td>0.745</td>
</tr>
<tr>
<td>5</td>
<td>Private universities fulfills its responsibility for the future of its graduates (X4.3)</td>
<td>0.512</td>
</tr>
<tr>
<td></td>
<td>Feel proud to be able to study at this private universities (X5.2)</td>
<td>0.831</td>
</tr>
<tr>
<td></td>
<td>Feeling close to this private universities (X5.1)</td>
<td>0.524</td>
</tr>
</tbody>
</table>

Source: output SPSS, 2020
New Factor Naming

The new factors that were previously referred to as factors 1, 2, 3, 4, 5 and 6 will be named according to the largest loading factor obtained from the indicators in these factors, the following explanation can be seen in Table 6.

<table>
<thead>
<tr>
<th>Faktor</th>
<th>Eigen Value</th>
<th>% Varians</th>
<th>Indicator</th>
<th>Loading Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12.105</td>
<td>44.832</td>
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<td>X1.6</td>
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</tr>
</tbody>
</table>

Source: output SPSS, 2020

Based on Table 6, these factors are named as follows:

**Factor 1**: Service, the eigenvalue obtained by factor 1 is 12.105 with a variance contribution of 44.832 has seven indicators, each loading factor ≥ 0.5. The service factor naming based on the biggest loading factor is obtained by the service indicator as promised (X1.10) of 0.846 so that according to the initial explanation X1.10 is part of the service factor.

**Factor 2**: physical evidence, the eigenvalue obtained by factor 2 is 2.721 with a variance contribution of 10.078 having seven indicators, each loading factor ≥ 0.5. The naming of the physical evidence factor based on the largest loading factor is obtained by the neat lecture hall indicator (X1.2) of 0.878 so that the 2 factor is called the physical evidence factor according to the initial concept.

**Factor 3**: Reputation, the eigenvalue obtained by factor 3 is 1.610 with a variance contribution of 5.962 has five indicators, each loading factor ≥ 0.5. The naming of the university's reputation factor based on the largest loading factor is obtained by the indicator of the various study programs offered (X2.2) of 0.787 so that this factor 3 is called the reputation factor.

**Factor 4**: Satisfaction, the eigenvalue obtained by factor 4 is 1.350 with a variance contribution of 5.001 having three indicators, each loading factor ≥ 0.5. The naming of student satisfaction factors based on the biggest loading factor is obtained by the private universities service indicator in accordance with student expectations (Z1.2) of 0.823 so that this factor 4 is called the satisfaction factor.

**Factor 5**: Trust, eigenvalue obtained by factor 5 is 1.146 with a variance contribution of 6.365 having two indicators, each loading factor ≥ 0.5. Naming the

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student trust factor based on the biggest loading factor is obtained by the indicator of obtaining information about the quality of the restaurant (X2.1) of 0.825 so that this factor of 5 is called the trust factor.

Factor 6: Commitment, the eigenvalue obtained by factor 5 is 1.146 with a variance contribution of 6.365 having two indicators, each loading factor ≥ 0.5. The naming of the affective commitment factor based on the largest loading factor is obtained by the indicator of feeling proud to be able to study at this private university (Z3.2) of 0.831 so that this factor of 6 is called the affective commitment factor.

**CONCLUSION**

Conclusions, Implication/Limitation and Suggestions

In this study using factor analysis method. Based on the results of factor analysis, conclusions can be drawn from the factors that influence student decisions in choosing to study in the city of Medan as follows:

1. The results of the factor analysis show that from 27 indicators into six factors, namely service, physical evidence, reputation, satisfaction, trust and commitment.
2. Through factor analysis, it can be seen that the most dominant factor affecting student decisions in choosing to study at private tertiary institutions in the city of Medan is commitment.

**REFERENCES**

4. https://doi.org/10.5005/jp/books/11120_9