CUSTOMER SATISFACTION IN POSTGRADUATE PROGRAM
THROUGH INCREASED PERCEIVED VALUE

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Abstract: This research is a continuation of previous research conducted by Gaston LeBlanc and Nha Nguyen, 1999, a survey of the dimensions that affect the perceived value, and a study conducted by Gordon HG McDougall, Terrence Levesque (2000) regarding the relationship between perceived value and customer satisfaction. It encouraged the author to conduct further research to see the effect of the perceived value dimensions on customer satisfaction, which is applied to universities that the author is managing. This study aims to determine the impact of postgraduate students' assessments on what they feel about the college activities they are undergoing with the satisfaction they feel. and explore the dimensions of perceived value that determine and cause consumers to feel satisfied. Based on the tests that have been carried out, it turns out that from the 6 dimensions, only 4 sizes directly influence customer satisfaction. This is supported by the results of the hypothesis testing of these four dimensions that it has a t-value greater than t table.

Keywords: Perceive value {functional value (want satisfaction & price/quality), epistemic value, image, emotional value, social value} and Customer satisfaction

INTRODUCTION

In the competitive situation for the implementation of postgraduate programs, many institutions have unclear status and credibility. With their nameplate, they lure a shortcut to get a title. Jeffrey Pfeffer, a well-known professor at the renowned business school, Stanford University Graduate School of Business argues, as long as there is no measurement of the long-term value of the degree held by its graduates, don't expect it to be clear whether an expensive business school education is beneficial (SWA number 22).

Many things affect the consumer's assessment of whether or not he is satisfied with the product or service he gets. One of these things is perceived value. According to Holbrook (1986), a value judgment is the result of the consumption experience. The value itself is defined by Zeithaml (1988) as a low price; value is the desire to be satisfied, value is the quality that is obtained according to the price paid, and value is what I get from what I have given. Meanwhile, Barry and Yadav (1996) say that the key to improving service is to relate the price consumers pay to the value they get.
According to Gordon HG McDougall and Terrence Levesque (2000), there is a relationship between perceived value and customer satisfaction.

**Identification of problems**
1. How is the influence between the functional value on customer satisfaction
2. How is the effect of epistemic value on customer satisfaction
3. How is the effect of image on customer satisfaction
4. How does emotional value affect customer satisfaction
5. How is the effect between functional value (price/quality) on customer satisfaction
6. How does social value affect customer satisfaction

**Research purposes**
1. Knowing the effect of functional value on customer satisfaction
2. Knowing the effect of epistemic value on customer satisfaction
3. Knowing the effect of image on customer satisfaction
4. Knowing the effect of emotional value on customer satisfaction
5. Knowing the effect of functional value (price/quality) on customer satisfaction
6. Knowing the effect of social value on customer satisfaction

**Benefits of research**
The results of this study are expected to provide an overview of the value from the consumer's point of view and its effect on consumer satisfaction so that it can produce valuable information for the university management to allocate available resources according to student needs to increase student satisfaction.

**LITERATURE REVIEW**

**Theoretical Framework**

Hesham Z. Al-Sabbahy et al. (1998) that the concept of perceived value has been accepted as the most important and very popular in the business environment, because of its effect on consumer behavior and at the same time providing strategic implications for the company's success. Can give a balanced value with the price that consumers have to pay will influence the behavior of choosing a consumer, not only before buying but also having various impacts after the product buying process is carried out. Perceived value has been defined as a consumer's overall assessment of the benefits of a product based on what consumers give and what they receive (Zeithaml, 1998, p. 14). And based on this definition, Zeithaml (1998) identified four different meanings of value, namely: (1) value is a low price, (2) value is anything desired in a product, (3) value is the quality that consumers receive for the price they pay, and (4) value is what consumers get for what they give. Kiefer and Kelly (1995) also found that when consumers do not like their consumption experience, they will remember the price being higher than what they have paid and feel they are not getting a good value or according to their wishes. Research conducted by Gaston LeBlanc and Nha Nguyen (1999) identified 6 dimensions that affect or are related to perceived value, namely "functional value, want satisfaction," such as in groups and social activities that will provide added value. In several studies, the functional value itself has been suggested as the most important value dimension (Berry and Yadav, 1996; Sheth et al., 1991; Tellis and Gaeth, 1990; Zeithaml, 1988). At the same time, the epistemic value associated with the quality of education has been identified by Bolton and Drew (1991 B) as the most important factor of service value. The dimensions of emotional and
social value were adopted based on the consumption value written by Sheth et al. (1991).

Consumer satisfaction is something that refers to the subjective experience of each individual as stated in the following statement “Consumer satisfaction with a product/service refers to the favorability of the individual's subjective evaluation of the various outcomes and experience associated with using or consuming the product/service” (Hunt, 1977). So that it can be said that customer satisfaction depends on the perception of customers who evaluate whether their expectations have been met or exceeded, Richard F Gerson (1993). Meanwhile, Linder Pelz (in Gotlieb, Grewal, and Brown, 1994) defines satisfaction as an active response to a specific consumption experience. Cadotte, Woodruff, and Jenkins (in Gotlieb, Grewal, and Brown, 1994) suggest that satisfaction is an emotional response. Kotler (1994) argues that customer satisfaction is the level of one's feelings after comparing perceived performance with expectations; precisely, student satisfaction reflects the effectiveness of all aspects gained from experience during education. In one of their articles, Sloan Consortium (2001), Andreas Eggert and Wolfgang Ulaga (2002), in their research found that customer perceived value and customer satisfaction are related and can be measured differently and complement each other. Meanwhile, Gordon HG McDougall, Terrence Levesque (2000) stated, "perceived value was a significant determinant of customer satisfaction, its consistent effect on satisfaction, which dominated the contribution of relational quality.

Based on research that has been done by Gaston leBlanc and Nha Nguyen (1999), which describes the dimensions that influence perceived value, and research conducted by Gordon HG McDougall and Terrence Levesque (2000), which identifies there is a close relationship between perceived value and consumer satisfaction, then there is an opportunity for research conducted by the author, namely looking for a connection between the dimensions of perceived value and consumer satisfaction. So when a new problem arises, formulated as follows: Is there a relationship between the sizes of perceived value and consumer satisfaction?

**RESEARCH METHOD**

**Variables and Measurements**

![Figure 1](https://dinastipub.org/DIJEMSS)
24 statement items were used to measure perceived value, adopted from research conducted by Gaston LeBlanc and Nha Nguyen (1999). To measure customer satisfaction used 2 statement items were adopted from research conducted by Gordon HG McDougall and Terrence Levesque (2000).

As revealed in the object of research, that the main problem under study stems from two things, namely the dimensions of perceived value (Exogenous Latent) and customer satisfaction (Endogenous Latent). The operationalization of variables to answer problem identification can be seen in the table below.

<table>
<thead>
<tr>
<th>Exogenous Latent</th>
<th>Exogenous Indicator Variables</th>
</tr>
</thead>
</table>
| **Functional Value (Want Satisfaction)** | 1. This degree will bring me a good salary.  
2. This degree will bring me to my career goals.  
3. The knowledge that I get at this business school will lead me to get a promotion.  
4. I believe employers are interested in recruiting students from my business school.  
5. A degree from my business school is a good investment. |
| **Epistemic Value** | 6. The quality of the education I receive from my professors affects the grades of my degree.  
7. Lecture material affects my educational value.  
8. The number of students in the class affects my educational grades.  
9. The instructions I received from my professors affected my educational grades.  
10. I learned new things in many of my lectures. |
| **Image** | 11. I've heard positive things about my business school.  
12. The reputation of my business school affects my undergraduate grades.  
13. The image my business school gives affects my undergraduate grades.  
14. I believe employers have positive things to say about my business school. |
| **Emotional Value** | 15. I love taking courses in this program.  
16. I am happy that I chose to study at this campus.  
17. The value of my education depends on my efforts. |
| **Functional Value (Price/Quality)** | 18. When I realized the price, I paid for college business school and believed that my school provides a balanced service.  
19. When I realized the price, I paid for business school tuition, and I believe there is a good comparison between price and quality at my business school.  
20. I believe that my business school provides quality service. |
| **Social Value** | 21. I like it when friends are in class.  
22. I find lectures more enjoyable when there are friends in the class.  
23. Working in groups had a positive effect on my educational grades.  
24. The social activities at my business school made my studies more interesting. |

<table>
<thead>
<tr>
<th>Endogenous Latent Variables</th>
<th>Endogenous Indicator Variables</th>
</tr>
</thead>
</table>
| **Customer Satisfaction** | 1. This faculty met my expectations.  
2. I am delighted with this faculty. |

**Sample**

Sampling was done by convenience sampling technique due to time constraints. At the same time, the information is to be obtained quickly. The sampling procedure is
carried out using probability sampling, which provides equal opportunities for each individual (member) of the selected population. The sampling technique used is random sampling, where the sample is taken from all populations randomly.

Bentler (1993) recommends that for research using Structural Equation Modeling and Path Analysis, a minimum sample of 1: 5 (one versus five) between the number of statement items on the questionnaire and the number of respondents. Thus, the minimum sample is as much as:

$$N = \text{jumlah item pertanyaan} \times 5$$

$$= 24 \times 5$$

$$= 120$$

So the minimum number of samples in this study was 120 respondents from semesters 1, 2, and 3.

**Analysis method**

The method used in data analysis in this study is the Structural Equation Modeling method. Understanding Structural Equation Modeling according to Hair, Anderson (1998:583) is a multivariate technique that combines aspects or drivers of multiple regression (testing dependency relationships) and factor analysis (unmeasured representation of multiple factors with multiple variables) to simultaneously assess a series of dependent relationships.

In Structural Equation Modeling there is no single statistical test tool to measure or test the model created. Generally, there are various types of fit indices that are used to measure the degree of fit between the hypothesized model and the data presented. Researchers are expected to carry out testing using several fit indices to measure the "correctness" of the proposed model. The following table presents several conformity indexes with cut-off values to be used in testing whether a model can be accepted or rejected:

<table>
<thead>
<tr>
<th>Table 2. Goodness of Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goodness of Fit Measure</strong></td>
</tr>
<tr>
<td>Absolute Fit Measure</td>
</tr>
<tr>
<td>Goodness-of-Fit Index (GFI)</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
</tr>
<tr>
<td>Incremental Fit Measures</td>
</tr>
<tr>
<td>Normal Fit Index (NFI)</td>
</tr>
<tr>
<td>Adjusted Goodness-of-Fit (AGFI)</td>
</tr>
<tr>
<td>Parsimonious Fit Measures</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
</tr>
</tbody>
</table>

Source: Hair et al. (1998 p. 660)

The test criteria is to compare the calculated t-value (T-value) and the t-value from the normal distribution table (T-table). The right-hand (positive) test criteria reject H0 if the T-value > T-table.
FINDING AND DISCUSSION

Validity and reliability test results

The first step is to test the validity. The distinguishing power of items in this study was carried out by means of "item-total correlation". Item-total correlation is the consistency between item scores and overall scores, which can be seen from the magnitude of the correlation coefficient.

Test criteria, reject H0 if the Spearman correlation coefficient is less than or equal to 0.30 ($r_s \leq 0.30$) (Cronbach, 1970:429). Based on the test criteria, the validity coefficient shows that, out of the twenty-six statements, there are two items that are invalid. The two invalid question items are in the functional value dimension and the epistemic value dimension, the invalid statement items cannot be included in further data analysis. Reliability means the level of trustworthiness of the results of a measurement tool. Measurements that have high reliability are measurements that are able to provide reliable (reliable) measurement results. According to Nunnaly (1978) quoted by Hermawan (2003:42) a construct is considered reliable if it has an alpha coefficient = 0.70. The results of Cronbach's Alpha Reliability coefficient of all research variables exceed 0.70,

Measurement Model

After calculating using the LISREL 8.30 software, the loading coefficient value is obtained, which is a value that can estimate the consistency of the variables (composite reliability) and know the indicator variables that can represent constructs (variance extracted) in indicating the latent construct.

all latent variables in this study exceed the acceptable limit of 0.70 (Hair, Anderson, 1998, p. 612), meaning that all indicator variables used have a fairly high consistency to measure or indicate the constructed latent variables. For the variance extracted value, the entire value obtained is more than 0.50 (Hair, Anderson, 1998: 612), meaning that the indicator variables have adequately represented the constructs made.

Structural Model

From the results obtained in table 8 above, it shows that the statement items in the questionnaire form seven factors. From the grouping of the seven factors, the statement item X4 from the Image factor is eliminated. Then the statement item X22 is eliminated from the Social Value factor. The two statements were eliminated because the results of calculations using the Lisrel 8.30 software did not show significant figures for the group.

Hypothesis testing

Hypothesis 1 examines the effect of (+) Fuctional Value (Want Satisfaction) on Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

$H_0^1$: There is no effect (+) between Functional Value (Want Satisfaction) on Customer Satisfaction.
$H_{A1}^1$: There is a (+) effect between Functional Value (Want Satisfaction) on Customer Satisfaction.
The obtained T-value is 2.85 and the T-table from the normal distribution table with a significance level of 0.05 is 1.96. Then the test criteria for hypothesis 1 is reject \( H_0 \) because \( T-value > T-table \), it means that there is a (+) effect between Functional Value (Want Satisfaction) on Customer Satisfaction.

From the calculation results above, it can be seen that the results of testing the first hypothesis are consistent with the hypothesis that was drawn the first time, namely that there is a (+) effect between Functional Value (Want Satisfaction) on Customer Satisfaction.

Hypothesis 2

Hypothesis 2 examines the effect of Epistemic Value (Knowledge) and Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

\[
\begin{align*}
H_0^2 & : \text{There is no (+) effect between Epistemic Value (Knowledge) on Customer Satisfaction.} \\
H_A^2 & : \text{There is a (+) effect between Epistemic Value (Knowledge) on Customer Satisfaction.}
\end{align*}
\]

The T-value is 2.24 and the T-table from the normal distribution table with a significance level of 0.05 is 1.96. Then the test criteria for hypothesis 2 is reject \( H_0 \) because \( T-value > T-table \), meaning that there is an influence between Epistemic Value (Knowledge) and Customer Satisfaction.

From the calculation results above, it can be seen that the results of testing the first hypothesis are consistent with the hypothesis that was first drawn, namely that there is an influence between Epistemic Value and Customer Satisfaction.

Hypothesis 3

Hypothesis 3 examines the effect of Image on Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

\[
\begin{align*}
H_0^3 & : \text{There is no influence between Image on Customer Satisfaction.} \\
H_A^3 & : \text{There is an influence between Image on Customer Satisfaction.}
\end{align*}
\]

The T-value obtained is 1.60 and the T-table from the normal distribution table with a significance level of 0.05 is 1.96. Then the test criteria for hypothesis 3 is fail to reject \( H_0 \) because \( T-value < T-table \), meaning that there is no influence between Image and Customer Satisfaction.

From the calculation results above, it can be seen that the results of testing the first hypothesis are contrary to the hypothesis that was first drawn, namely that there is an influence between Image and Customer Satisfaction. So it can be concluded that in this study the respondents who were asked for their opinion felt that the image dimension did not directly affect the level of satisfaction they felt.

Hypothesis 4
Hypothesis 4 examines the effect of Emotional Value on Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

H0 : There is no influence between Emotional Value on Customer Satisfaction.

HA : There is an influence between Emotional Value on Customer Satisfaction.

Obtained a T-value of 2.02 and a T-table of the normal distribution table with a significance level of 0.05, which is 1.96. Then the test criteria for hypothesis 4 is reject H0 because T-value > T-table, meaning that Emotional Value affects Customer Satisfaction.

From the calculation results above, it can be seen that the results of testing the first hypothesis are consistent with the hypothesis that was first drawn, namely that there is an influence between emotional value on Customer Satisfaction.

Hypothesis 5

Hypothesis 5 examines the effect of Functional Value (Price/Quality) on Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

H0 : There is no influence between Functional Value (Price/Quality) on Customer Satisfaction.

HA : There is an influence between Functional Value (Price/Quality) on Customer Satisfaction.

The T-value is -0.08 and the T-table from the normal distribution table with a significance level of 0.05 is 1.96. Then the test criteria for hypothesis 5 is fail to reject H0 because T-value < T-table, meaning that there is no influence between Functional Value (Price/Quality) on Customer Satisfaction.

From the calculation results above, it can be seen that the results of testing the first hypothesis are contrary to the hypothesis that was first drawn, namely that there is an influence between Functional Value (Price/Quality) on Customer Satisfaction. So it can be concluded that in this study the respondents who were asked for their opinion felt that the Functional Value (Price/Quality) dimension did not directly affect the level of satisfaction they felt.

Hypothesis 6

Hypothesis 6 examines the effect of Social Value on Customer Satisfaction. The null hypothesis and its alternative hypotheses are structured as follows:

H0 : There is no influence between Social Value on Customer Satisfaction.

HA : There is an influence between Social Value on Customer Satisfaction.

The T-value is 3.12 and the T-table from the normal distribution table with a significance level of 0.05 is 1.96. Then the test criteria for hypothesis 2 is reject H0 because T-value > T-table, meaning that there is an influence between Social Value on Customer Satisfaction.
From the calculation results above, it can be seen that the results of testing the first hypothesis are consistent with the hypothesis that was first drawn, namely that there is an influence between Social value on Customer Satisfaction.

Likewise for hypotheses 2, 4, and 6, each of which is proven to have an influence on customer satisfaction. Meanwhile, the 3rd and 5th hypotheses were rejected, which means that in this study, the image dimensions and functional value (price/quality) were found to have no effect on customer satisfaction.

From research conducted by Gordon HG McDougall, Terrence Levesque (2000) regarding the relationship between perceived value and customer satisfaction obtained the results of perceived value as an important contributor to consumer satisfaction, as well as research conducted by Andreas Eggert and Wolfgang Ulaga (2002) obtained the results that customer perceived value have an effect on customer satisfaction of 0.82. Meanwhile, research on the dimensions of perceived value conducted by Gaston LeBlanc and Nha Nguyen (1999) obtained 6 dimensions, namely functional value (want satisfaction), epistemic value, image, emotional value, functional value (price/quality), and finally social values. However, in this study, it turns out that of the six dimensions associated with customer satisfaction, it turns out that only 4 dimensions have a direct influence, namely functional value (want satisfaction), epistemic value, emotional value, and finally social value. The dimension that has the biggest relationship with customer satisfaction is the social value dimension of 0.27 or 27%.

CONCLUSION
1. From the calculation of the structural model, there are 2 rejected hypotheses, namely the third hypothesis (there is an influence between image on customer satisfaction) and the fifth hypothesis (there is an influence between functional value {price} on customer satisfaction).

2. For the first hypothesis (there is an influence between functional value on customer satisfaction) from the research results obtained t-value of 2.85 which is greater than t-table so that the first hypothesis is accepted, can be seen in table 17. degree earned and the value for students to see the work in the future, Gaston LeBlanc and Nha Nguyen (1999) has a direct relationship with customer satisfaction felt by students. This is possible because according to Richard.F Gerson (1993), customer satisfaction is the customer's perception that his expectations have been met or exceeded. In this dimension there are 4 variables in it and of these 4 variables the 5th variable most influences the relationship between this dimension and customer satisfaction.

3. From table 17 for the second hypothesis (there is an influence between epistemic value on customer satisfaction) obtained t-value of 2.24 which is greater than t-table so that the second hypothesis is accepted. So it can be concluded that epistemic value, which is related to the capacity of business schools to provide quality education to students, Gaston LeBlanc and Nha Nguyen (1999), will directly provide a sense of satisfaction for students.

4. For the fourth hypothesis (there is an influence between emotional value on customer satisfaction) the results of the study obtained a t-value of 2.02 (can be seen in table 17) which is greater than t-table so that the fourth hypothesis is accepted. So it can be concluded that Emotional value, regarding the positive feelings they
have towards the learning process they run, Gaston LeBlanc and Nha Nguyen (1999) will bring students to feel satisfied with the experience they get.

5. For the sixth hypothesis (there is an influence between social value on customer satisfaction) from the research results obtained t-value of 3.12 which is greater than t-table so that the sixth hypothesis is accepted. So it can be concluded that Social value which describes the usefulness that students feel from group activities both when studying in class, doing assigned assignments or when studying outside class hours, Gaston LeBlanc and Nha Nguyen (1999), gives the greatest influence on the level of satisfaction obtained felt by students.

6. In table 17, it can be seen from the four accepted hypotheses, that the social value dimension has the greatest influence (contribution) compared to other dimensions on customer satisfaction felt by students at this university, which is 3.12.

7. Of the four accepted hypotheses, the social value dimension has the greatest influence on the level of student satisfaction, which is 27%. This means that the more satisfying the social environment at the university is, the higher the level of satisfaction felt by students.

Managerial Implications

1. Improving the quality of education by providing materials that students can directly apply to their work.
2. Adjusting course material to the needs of the job.
3. Increase the number of experienced lecturers both theoretically and practically.
4. Provide a more detailed explanation to all students about the programs offered at this university.
5. Emphasizing activities in the teaching and learning process on group activities.
6. Provide continuous information to students about what is needed by the industry.

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