Creating Student Loyalty Through the Value of Context-Based Customer Education

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ABSTRACT

Objective: The objective of this research is to find out how the Covid-19 pandemic forces the learning process at all levels of education including higher education to be carried out online, where face-to-face meetings are not allowed. How the influence of relational contact and physical context on context-based customer education and on the value of student experience and student loyalty in private universities is the aim of this study.

Methodology: The survey was conducted in three major cities in Indonesia, namely Palembang, Bandung, and Surabaya with a total sample of 280 students. Characteristics of respondents based on age, gender, and semester of the three samples of cities are relatively homogeneous. Data analysis was carried out using a structural equation model (SEM) approach with the help of LISREL software.

Finding: The results showed that the relational context had a positive and significant effect on context-based customer education, but the physical context had no effect. Context-based customer education has a positive effect on the value of student experience and student loyalty.

Conclusion: Even though learning is done through online, students hope that there will be a strong interaction between lecturers and students, so that in lectures, at least it is carried out using blended learning. Strong interaction between students and lecturers is a context-based customer (student) education that can improve the student experience and have an impact on student loyalty to their alma mater.

Keywords: relational context; physical context; context-based customer education; student experience; student loyalty.
INTRODUCTION

The COVID-19 pandemic that hit almost all countries including Indonesia forced various activities to be carried out online, including learning at universities (Aristovnik, Keržič, Ravšelj, Tomaževič, & Umek, 2020; Cahyawati & Gunarto, 2021). The impact of online learning has various responses from students, some are satisfied but not a few are dissatisfied (Iglesias-Pradas, Hernández-García, Chaparro-Peláez, & Prieto, 2021; Jung, Horta, & Postiglione, 2021; Laili & Nashir, 2021). Student dissatisfaction with online learning will have a negative impact on student loyalty because the value of student experience will decrease (El Said, 2021; Gunarto, Hurriyati, Disman, & Wibowo, 2018; Tang et al., 2021). The lack of physical context certainly reduces the value of experience for students in college, because that is actually what students buy (Gunarto & Hurriyati, 2020).

Academics and practitioners agree that loyalty is an integral part of doing business in both manufacturing and service companies (Akbar, 2013; Alguacil, Núñez-Pomar, Calabuig, Escamilla-Fajardo, & Staskeviciute-Butiene, 2021; Aritonang, 2014; Bergamo, Giuliani, Camargo, Zambaldi, & Ponchio, 2012; Brown & Mazzarol, 2008; Carvalho & de Oliveira Mota, 2010; Chen, 2015; Cossío-Silva, Revilla-Camacho, Vega-Vázquez, & Palacios-Florencio, 2016; Evanschitzky & Wunderlich, 2016). Hardly any business can survive without building loyal customers. Some researchers claim that getting new customers is much cheaper than keeping old ones (Cossío-Silva et al., 2016; Griffin, 2002; Kim, Wong, Chang, & Park, 2016). The cost of acquiring new customers is 5 – 6 times cheaper, and a 5 percent increase in customer retention will increase 25 – 125 percent of profits (Griffin, 2002). However, there is no agreement on the definition of customer loyalty until now, loyalty antecedents that have been identified are highly speculative (Buttle & Burton, 2002). Various studies have proven that customers will be loyal to a company as long as the company offers higher value than its competitors (Khalifa, 2004). However, few studies have directly addressed the idea that experiential value has a positive and important impact on increasing customer loyalty (Dean, Griffin, & Kulczynski, 2016; Gallarza & Gil Saura, 2006; Gunarto & Hurriyati, 2020; Gunarto, Hurriyati, Disman, Wibowo, & Natalisa, 2018).

As a marketer, create a "stimulus" that will result in an experience means that a marketer must take strategic steps that will be provided to customers, so it is necessary to design experiences that will be presented to customers (Pitri & Gunarto, 2020). Experiences that have a lot of active participation in various activities will blend in the context. Context is of utmost importance in experience management and design. Context is a physical and relational relationship, where customers consume services and everything that customers interact with in that setting (Gupta & Vajic, 1999). Refers to physical contexts as "mechanics clues" to the sight, smell, sound and texture produced by objects. While the relational context is referred to as "humanic clues" for the behavior that people produce (Carbone & Haeckel, 1994). The strategy to increase alumni loyalty is through good interaction quality (Iskhakova, 2020; Iskhakova, Hilbert, & Hoffmann, 2016; Iskhakova, Hilbert, & Joehnk, 2020; Iskhakova, Hoffmann, & Hilbert, 2017).

There has been an increase in research on student loyalty to universities in recent years, some researchers state that the value of experience has a significant relationship with student and alumni loyalty (Gallarza & Gil Saura, 2006; Gunarto & Hurriyati, 2020; Snijders, Wijnia, Rikers, & Loyens, 2020), while other researchers state that there is no positive relationship between the value of the experience gained by customers and loyalty (Francisco-Maffezzolli, Semprebon, & Prado, 2014). This phenomenon reveals that research on the effect of the value of experience on student loyalty still needs to be done in-depth research as recommended by
these researchers. Therefore, the author considers it very important to conduct more in-depth research on the effect of context-based experience values on student loyalty, including the role of student experience values. The urgency of this study is that the number of new students, especially from private higher education (PHE) has decreased, so PHE always makes huge promotional efforts to get new students. For this reason, it is necessary to build loyal alumni, so that they are able to recommend, invite and tell good things about their alma mater.

LITERATURE REVIEW

Student Loyalty

Loyal customers are an important asset for the company (Griffin, 2002), as well as loyal students who are an important value for universities (Arironang, 2014; Bergamo et al., 2012; Borishade, Worlu, Ogonnaike, Aka, & Dirisu, 2021; Brown & Mazzarol, 2008; Carvalho & de Oliveira Mota, 2010; Gunarto, Hurriyati, Disman, & Wibowo, 2018; Gunarto, Wibowo, & Hurriyati, 2016). There are four characteristics of loyal customers, namely: (1) makes regular repeat purchases; (2) purchases across product and service lines; (3) refers to others; (4) demonstrates an immunity to the full of the competition. Many findings reveal that high levels of customer satisfaction do not always result in repeat purchases and increase sales, customer satisfaction measurement systems can no longer be used as reliable predictions to measure repeat purchases and instead measurement using customer loyalty is more reliable (Griffin, 2002; Gunarto, Hurriyati, Disman, & Wibowo, 2018).

According to Kotler and Armstrong (2014), customer loyalty is a repeat purchase made by a customer because of a commitment to a brand or company. Customer loyalty is the commitment that customers have to make repeat purchases and be loyal to a particular company or brand compared to competitors in the same industry. Lately, two things that have become the main concern of universities are the fulfillment of student satisfaction and loyalty. These two values are the main goals of universities in developed countries. Student satisfaction and loyalty are the two main values that must be achieved by universities (Elliott & Shin, 2002; Peng & Li, 2021).

Experiential Value

Experience value refers to the customer's perception of a product or service through direct use or indirect observation (Mathwick, Malhotra, & Rigdon, 2001). This value provides internal and external benefits to customers (Dean et al., 2016; Gunarto & Hurriyati, 2020; Gunarto, Hurriyati, Disman, Wibowo, et al., 2018; Prahalad & Ramaswamy, 2004; Nina K. Prebensen, Kim, & Uysal, 2016; Nina Katrine Prebensen, Woo, & Uysal, 2013). Internal benefits are when starting and completing tasks or work, while external benefits consist of pleasure and happiness in completing a process (Nina Katrine Prebensen et al., 2013). The customer experience consists of all the cognitive, affective, emotional, social and physical responses to the retailer (Verhoef et al., 2009). Student satisfaction is considered as a preference for students' subjective evaluations of various outcomes and experiences related to education (Douglas, McClelland, & Davies, 2008; Elliott & Shin, 2002; Elsharnouby, 2015; Gallarza & Gil Saura, 2006; Gunarto & Hurriyati, 2020; Gunarto, Hurriyati, Disman, Wibowo, et al., 2018; Nina K. Prebensen et al., 2016).
In addition to the intrinsic and extrinsic dimensions, Holbrook (1997) adds active and reactive dimensions to the value of experience. Active value comes from increased collaboration between customers and businesses; reactive value comes from the evaluation, feedback and understanding of customers about the service or product they want to buy. The interaction between perception (intrinsic/extrinsic) and the active dimension (active/reactive) further classifies experience value into four distinct categories: customer return on investment (extrinsic/active), service excellence (extrinsic/reactive), aesthetics (intrinsic/reactive) and games (intrinsic/reactive). So far, most customer experience management research has worked on the collective aspects of the market experience that they think are most valuable for consideration (Verhoef et al., 2009).

**Context Based Customer Education**

Interest in customer education in marketing theory is relatively new (Hennig-Thurau, Langer, & Hansen, 2016; Hennig-Thurau et al., 2010). Value creation is a major concern for companies, but the position of value creation has changed over the last few decades as the market has changed from the industrial era to the post-industrial era (Prahalad & Ramaswamy, 2004). In the industrial age, each player – supplier, company, customer – occupies a position in the value chain and each adds their own value. Customers are considered passive recipients (Wikström, 1996). In the post-industrial era, the value creation system has changed and now it is composed of a collection of players who work together to produce value together (Díaz‐Méndez, Gummesson, & Gummesson, 2012; Grönroos, 2011; Gunarto, Hurriyati, Disman, Wibowo, et al., 2018). Customer involvement has become essential in the design, development, and production of new products or services (Wikström, 1996). There are four phases of the context-based customer education design framework (He, Chen, Hoyle, & Yannou, 2012), namely the physical environment, social environment, assignment and relationship perspective.

**Relational Context**

There are two important types of interaction in terms of the relational context, namely between guests and service providers and guests with other guests. Although several previous studies have stated that both relationships are important, the impact on customer loyalty has not been stated explicitly. These interactions are important to encourage identification of the value of the experience between guests and service providers and guests with other guests (Mael & Ashforth, 1992). Customer loyalty behavior is created when the customer identifies the interaction of the service provider and other customers, the customer takes the interests of the service provider and accepts those interests as his own. When service providers focus on relationships, they create an emotional context for future interactions. Effective experience design creates loyalty when service providers rely on their employees and customers to create a shared identity and emotional support in the customer experience (Pullman & Gross, 2004).

**The Physical Context**

All visible aspects of service design fall into the physical context. Various service designs that include the physical context are supporting facilities, the provision of goods and the sensual and psychological benefits of services obtained from an object. Physical context is something
that can be sensed, which can be seen, smelled, touched or felt (Kristensen, 2004). An effective physical context is simple, attractive, and engages all the senses reflected in interior design, employee dress and behavior, and all tangible instruments. The criteria for a quality experience require consistent passion and style and interactive design. Good experience design is when it uses all the elements of a physical context to support an underlying vision, metaphor, or theme in dealing with an object (Alben, 1996; Carbone & Haeckel, 1994).

**Theoretical Framework and Research Hypotheses**

Context-based customer education is influenced by both the relational context and the physical context (Gao, Fan, Li, & Wang, 2021; Munteanu, Ceobanu, Bobâlcâ, & Anton, 2010; Osei-Frimpong, McLean, Wilson, & Lemke, 2020; Peng & Li, 2021; Trueblood, Brown, Heathcote, & Busemeyer, 2013). Context-based customer education affects the value of the student experience (Davis & Knight, 2021; Gallarza & Gil Saura, 2006; Selby, 2021; Torbjørnsen, Hessevaagbakke, Grov, & Bjørnnes, 2021) and student loyalty (Borishade et al., 2021). The value of experience gained by students during lectures will have a positive impact on student loyalty (Gallarza & Gil Saura, 2006; Gunarto & Hurriyati, 2020; Gunarto, Hurriyati, Disman, & Wibowo, 2018; Gunarto, Hurriyati, Disman, Wibowo, et al., 2018; Gunarto et al., 2016; Snijders et al., 2020).

![Fig 1. The framework model between Context-Based Customer Education, Student experience and Student loyalty.](image)

The theoretical model is shown in Figure 1. For the clarity of roles, the researcher argues that the relational context (H$_1$) and physical context (H$_2$) affect customer education. Context-Based Customer Education has a positive effect on the value of student experience (H$_3$) and Student Loyalty in higher education (H$_4$). The researcher also proposes a positive relationship between the value of student experience and Student Loyalty in higher education (H$_5$).

**METHOD**

**Sample and Data Collection**

This study used a quantitative approach. The survey was conducted by distributing questionnaires to students in three major cities in Indonesia, namely Bandung, Surabaya and Palembang. The sample of this research is final year students at private universities. The selection of final year students is expected to be able to feel the experience. Questionnaires...
were distributed via google form to 400 students, but only 280 students (70%) answered and could be analyzed. Previously, this questionnaire has been tested for content validity and reliability on each variable. This research instrument uses a Semantic Differential scale, where students are asked to answer statements by giving a score from a scale of 1 to 7. According to Maxfield and Babbie (2017) states that the questionnaire return rate is 50% as a pretty good result, the questionnaire return rate is 60% as a good result, and the questionnaire return rate is 70% as a very good result. However, please note that these rates of return serve as a rough guide only as they are not based on statistical calculations. Online-based surveys got 43% responses while paper-based surveys got 75% responses, but after being offered incentives, online surveys increased even though the increase was very small (Dommeyer, Baum, Hanna, Chapman, & S, 2004). The results of the study by Nulty (2008) stated that the response rate of respondents to online surveys only reached 33% or 23% lower when compared to paper-based surveys (manual) which reached 56%.

Research Instruments

This study examines the impact of relational context and physical context on customer education, then the effect of context-based customer education on the value of student experience and loyalty. Thus, there are five variables measured by the instrument as shown in Table 1.

Table 1. Operational Definition of Research Variables

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Indicator</th>
<th>Measuring Scale</th>
<th>Indicator Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relational Context</td>
<td>1. Active learning method</td>
<td>Semantic</td>
<td>RC1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Lecturer performance</td>
<td>Differential</td>
<td>RC2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. written report</td>
<td>1-7</td>
<td>RC3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Oral report</td>
<td></td>
<td>RC4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Administrative staff</td>
<td></td>
<td>RC5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Security staff</td>
<td></td>
<td>RC6</td>
</tr>
<tr>
<td>2</td>
<td>Physical Context</td>
<td>1. Exterior Design</td>
<td>Semantic</td>
<td>PC1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Interior Design</td>
<td>Differential</td>
<td>PC2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Library</td>
<td>1-7</td>
<td>PC3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Laboratory</td>
<td></td>
<td>PC4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Teaching aids</td>
<td></td>
<td>PC5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Interest area</td>
<td></td>
<td>PC6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Campus environment</td>
<td></td>
<td>PC7</td>
</tr>
<tr>
<td>3</td>
<td>Context-based customer education</td>
<td>1. Physical environment</td>
<td>Semantic</td>
<td>CBCE1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Social environment</td>
<td>Differential</td>
<td>CBCE2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Assignment</td>
<td>1-7</td>
<td>CBCE3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Perception</td>
<td></td>
<td>CBCE4</td>
</tr>
<tr>
<td>4</td>
<td>Student Experience</td>
<td>1. Pleasure</td>
<td>Semantic</td>
<td>SE1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Arousal</td>
<td>Differential</td>
<td>SE2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Dominance</td>
<td>1-7</td>
<td>SE3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Access Value</td>
<td></td>
<td>SE4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Possession Values</td>
<td></td>
<td>SE5</td>
</tr>
<tr>
<td>5</td>
<td>Student Loyalty</td>
<td>1. Continue study.</td>
<td>Semantic</td>
<td>SL1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Recommend to others.</td>
<td>Differential</td>
<td>SL2</td>
</tr>
</tbody>
</table>

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### Data analysis

This research analysis tool used a descriptive statistical approach and inferential statistics with Structural Equation Modeling (SEM) analysis. Structural Equation Modeling is used because it can analyze measurement models and structural models to answer research hypothesis testing (Gunarto, 2018). SEM can also be thought of as a combination of regression analysis, factor analysis and path analysis. The statistical program used in data processing is Linear Structural Relation (LISREL).

### RESULTS AND DISCUSSION

#### Results

**Characteristics of Respondents**

The survey was conducted on 280 students spread across three major cities in Indonesia, namely Palembang, Surabaya and Bandung with a distribution of 91 respondents (32.50%) from Palembang, 92 respondents (32.86%) from Bandung and 97 respondents (34, 64%) from Surabaya. The distribution of respondents based on age is relatively diverse, most of the respondents (52.50%) are 23-25 years old, then 28.93% are more than 25 years old and a few respondents are less than 20 years old. This characteristic illustrates that the age of students is relatively old, this is because this survey was conducted at private universities (PHE), where at PHE there are many classes of employees (not regular). Characteristics of respondents seen by gender are relatively balanced, there are 54% male and 46% female. Characteristics of respondents are seen based on semester level, most of the respondents (32.5%) are in semester 4 (fourth) or level two, 26.8% are in semester 6 (six) or level three and there are 21% of respondents are in semester 8 (eight) or final level, while the remaining 19.6% are still in semester 2 (two). Characteristics of respondents generally show diversity and can represent the existing population in accordance with the characteristics of students at PHE in Indonesia. The education level of the respondents has also been represented at each existing level (semester), so that the value of experience felt by students can be extracted from all levels.

**Measurement Model Analysis Results**

Analysis of the measurement model was carried out to assess the validity and reliability of the indicators used to represent the constructs that were built. Validity test is carried out to show how much degree is used to measure what should be measured. Analysis of the measurement model shows the strength of the indicator in explaining the construct. Through Confirmatory Factor Analysis (CFA) the loading factor value is obtained which shows the strength of the indicator in explaining the latent variable. The higher the loading factor value, the better the indicator is able to explain the construct (Gunarto, 2018). In addition to explaining the strength of an indicator, CFA also shows the validity of an indicator and the reliability of a construct. A valid indicator if the factor loading value is more than 0.7 and if 0.5 can still be considered. The reliability value was carried out with the criteria of Construct Reliability (CR) and Average Variance Extract (AVE). A construct is said to be reliable if CR ≥ 0.7 and AVE ≥ 0.5. If the CR value is between 0.6 - 0.7 then the reliability is still acceptable, if all indicators are declared
valid (Gunarto, 2018; Hair, Black, Babin, & Anderson, 2014). The results of the analysis of the measurement model of five latent variables with 25 measurement variables are presented in Tables 2 – 6.

**Measurement Model for Relational Context Variables**

The CFA results for each indicator of the Relational Context variable are all valid because the factor loading value for all indicators is greater than 0.5. The value of reliability on the Relational Context variable is as shown in Table 2.

**Table 2. The Value of Reliability on Relational Context**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading (λ)</th>
<th>Square of Factor loading (λ²)</th>
<th>Error (e)</th>
<th>Reliability Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC1</td>
<td>0.780</td>
<td>0.608</td>
<td>0.392</td>
<td>CR≥0.7</td>
</tr>
<tr>
<td>RC2</td>
<td>0.820</td>
<td>0.672</td>
<td>0.328</td>
<td>CR≥0.5</td>
</tr>
<tr>
<td>RC3</td>
<td>0.900</td>
<td>0.810</td>
<td>0.190</td>
<td>0.906</td>
</tr>
<tr>
<td>RC4</td>
<td>0.670</td>
<td>0.449</td>
<td>0.551</td>
<td>0.618</td>
</tr>
<tr>
<td>RC5</td>
<td>0.760</td>
<td>0.578</td>
<td>0.422</td>
<td></td>
</tr>
<tr>
<td>RC6</td>
<td>0.770</td>
<td>0.593</td>
<td>0.407</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.700</td>
<td>3.710</td>
<td>2.290</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. shows that the six indicators in the relational context variable are valid, because the factor loading value (λ) is more than 0.5. The reliability value shows reliable, because the CR value is greater than 0.7 (CR = 0.906) and the AVE value is greater than 0.5 (AVE = 0.618), so that the measurement model on the relational context variable can be analyzed further.

**Measurement Models for Physical Context Variables**

The CFA results for each indicator of the Physical Context variable are all valid because the factor loading value for all indicators is greater than 0.5. The value of reliability of the Physical Context variable is as shown in Table 3.

**Table 3. The Value of Reliability of Physical Context**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading (λ)</th>
<th>Square of Factor loading (λ²)</th>
<th>Error (e)</th>
<th>Reliability Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC1</td>
<td>0.750</td>
<td>0.563</td>
<td>0.438</td>
<td>CR≥0.7</td>
</tr>
<tr>
<td>PC2</td>
<td>0.850</td>
<td>0.723</td>
<td>0.278</td>
<td>CR≥0.5</td>
</tr>
<tr>
<td>PC3</td>
<td>0.920</td>
<td>0.846</td>
<td>0.154</td>
<td></td>
</tr>
<tr>
<td>PC4</td>
<td>0.880</td>
<td>0.774</td>
<td>0.226</td>
<td>0.933</td>
</tr>
<tr>
<td>PC5</td>
<td>0.750</td>
<td>0.563</td>
<td>0.438</td>
<td></td>
</tr>
<tr>
<td>PC6</td>
<td>0.780</td>
<td>0.608</td>
<td>0.392</td>
<td></td>
</tr>
<tr>
<td>PC7</td>
<td>0.770</td>
<td>0.593</td>
<td>0.407</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.700</td>
<td>4.670</td>
<td>2.330</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. shows seven indicators on the physical context variable that are valid, because they have a factor loading value of more than 0.5. The reliability value shows reliable, because the
CR value is greater than 0.7 (CR = 0.933) and the AVE value is greater than 0.5 (AVE = 0.667), so that the measurement model on the physical context variable can be analyzed further.

**Measurement Model for Context-Based Customer Education Variables**

The CFA results for each indicator of the context-based customer education variable are all valid because the factor loading value for all indicators is greater than 0.5. The value of reliability of context-based customer education variables is as shown in Table 4.

### Table 4. The Value of Reliability of Context-Based Customer Education

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading (λ)</th>
<th>Square of Factor loading (λ²)</th>
<th>Error (e)</th>
<th>Reliability Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBCE1</td>
<td>0.880</td>
<td>0.774</td>
<td>0.226</td>
<td>CR≥0.7</td>
</tr>
<tr>
<td>CBCE2</td>
<td>0.950</td>
<td>0.903</td>
<td>0.098</td>
<td>CR≥0.5</td>
</tr>
<tr>
<td>CBCE3</td>
<td>0.950</td>
<td>0.903</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td>CBCE4</td>
<td>0.920</td>
<td>0.846</td>
<td>0.154</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.700</td>
<td>3.426</td>
<td>0.574</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. shows that four indicators on context-based customer education variables are valid, because they have a factor loading (λ) value of more than 0.5. The reliability value shows reliable, because the CR value is greater than 0.7 (CR=0.960) and the AVE value is greater than 0.5 (AVE=0.856), so the measurement model on context-based customer education variables can be analyzed further.

**Measurement Model for Student Experience Variables**

The CFA results for each indicator of the student experience variable are all valid because the factor loading value for all indicators is greater than 0.5. The value of the validity and reliability of the student experience variable is as shown in Table 5.

### Table 5. The Value of Reliability of Student Experience

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading (λ)</th>
<th>Square of Factor loading (λ²)</th>
<th>Error (e)</th>
<th>Reliability Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE1</td>
<td>0.850</td>
<td>0.723</td>
<td>0.278</td>
<td>CR≥0.7</td>
</tr>
<tr>
<td>SE2</td>
<td>0.840</td>
<td>0.706</td>
<td>0.294</td>
<td>CR≥0.5</td>
</tr>
<tr>
<td>SE3</td>
<td>0.950</td>
<td>0.903</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td>SE4</td>
<td>0.950</td>
<td>0.903</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td>SE5</td>
<td>0.920</td>
<td>0.846</td>
<td>0.154</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.510</td>
<td>4.080</td>
<td>0.921</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. shows five indicators on the student experience variable that are valid, because a factor loading value of more than 0.5. The reliability value shows reliable, because the CR value is greater than 0.7 (CR = 0.957) and the AVE value is greater than 0.5 (AVE = 0.816), so the measurement model on the student experience variable can be analyzed further.

**Measurement Model for Student Loyalty Variables**

Based on the results of the CFA for the student loyalty variable, the factor loading value for all indicators is greater than 0.5. This means that all indicators forming student loyalty variables
are valid. The value of the validity and reliability of the student loyalty variable is as shown in Table 6.

**Table 6. The Value of Reliability Student Experience**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading (λ)</th>
<th>Square of Factor loading (λ²)</th>
<th>Error (e)</th>
<th>Reliability Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL1</td>
<td>0.900</td>
<td>0.810</td>
<td>0.190</td>
<td>CR ≥ 0.7</td>
</tr>
<tr>
<td>SL2</td>
<td>0.930</td>
<td>0.865</td>
<td>0.135</td>
<td>CR ≥ 0.5</td>
</tr>
<tr>
<td>SL3</td>
<td>0.840</td>
<td>0.706</td>
<td>0.294</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.670</td>
<td>2.381</td>
<td>0.620</td>
<td></td>
</tr>
</tbody>
</table>

Table 6. shows that three indicators on the student loyalty variable are valid, because factor loading value of more than 0.5. The reliability value shows reliable, because the CR value is greater than 0.7 (CR = 0.957) and the AVE value is greater than 0.5 (AVE = 0.816), so that the size of the model on the student loyalty variable can be analyzed further.

**Structural Equation Model Analysis Results**

Structural model analysis was conducted to prove the hypothesis expressed in this study. With the help of the Lisrel 8.80 program package, a diagram of the estimation results of the SEM analysis is obtained as shown in Figure 5.

![Fig 5. Relationship Between Latent Variables and Parameter Values](image)

A summary of the results of estimating the parameters of the relationship between latent variables with SEM analysis can be seen in Table 7.

**Table 7. Relationship Between Variables of SEM Analysis Results**

<table>
<thead>
<tr>
<th>Models</th>
<th>Relationship</th>
<th>Direct Effect</th>
<th>Standard Error</th>
<th>T-Test (&gt;1.96)</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub Model</td>
<td>CBCE → RC</td>
<td>0.910</td>
<td>0.088</td>
<td>10.29*</td>
<td>0.86</td>
</tr>
<tr>
<td>Sub Model</td>
<td>CBCE → PC</td>
<td>0.025</td>
<td>0.076</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Sub Model</td>
<td>SE → CBCE</td>
<td>0.930</td>
<td>0.049</td>
<td>18.80*</td>
<td>0.86</td>
</tr>
</tbody>
</table>
There are three sub-models presented in Table 7, namely sub-model (1) for context-based customer education (CBCE), sub-model (2) for student experience (SE) and sub-model (3) for student loyalty (SL). The strength of the model ($R^2$) obtained all shows relatively very good because more than 80% of the model is able to explain the variation of the existing data. The table also describes the results of hypothesis testing, where there are five hypotheses tested. The test results show that of the five hypotheses tested, there are four significant hypotheses and one insignificant hypothesis because the t-value is less than 1.96.

**Discussion**

**Relationship between relational context and physical context with context-based customer education**

Sub model (1) shows that contextual relational has a positive and significant effect on context-based customer education, but it is different from the physical context which has no effect on context-based customer education. This finding illustrates that the interaction between students and lecturers in higher education is considered very important (Gunarto & Hurriyati, 2020; Raciti & Ward, 2003; Zablah, Carlson, Donavan, Maxham III, & Brown, 2016), especially during the current Covid-19 pandemic where students cannot physically interact with lecturers or administrative staff on campus. In contrast to the physical context, which shows that it is not significant, it means that education in universities is still considered to be able to be carried out online, that learning in universities which during the Covid-19 pandemic was carried out online is still acceptable even though there is no physical meeting. The results of this study do not support the findings of Kristensen (2004) which stated that the physical context can increase students' creativity. Although in the service industry, the physical context should have a strong influence on the value of the customer experience such as the findings of Sürücü, Öztürk, Okumus, and Bilgihan (2019) on hotel guests, the Covid-19 pandemic has changed the new habit that physical meetings are something that is not so important because it can be replaced through online learning. The findings of this study indicate that context-based customer (student) education can be formed through the relational context, while the physical context has no significant effect on student education.

**The relationship between context-based customer education and the student experience**

Sub model (2) shows the relationship between context-based customer education and the value of student experience in higher education. The results of this study indicate that there is a significant influence between context-based customer education (students) on the value of student experience in higher education. The higher the context-based customer education, the
better the value of the experience students will get. In line with the findings of several researchers who state that context-based customer education has a positive effect on the value of experience (Bell & Eisingerich, 2007; Borishade et al., 2021; Carter & Yeo, 2016; Chalcraft, Hilton, & Hughes, 2015; Dou, Zhu, Zhang, & Wang, 2019; Peng & Li, 2021), but different from the findings Steils (2021) which states that customer education has a negative impact. College customers (students) will get a high value experience if as long as students get a more intense context-based education (Gunarto, Hurriyati, Disman, & Wibowo, 2018; Gunarto et al., 2016).

**The relationship between context-based customer education and student experience and student loyalty**

Sub model (3) shows that there is a significant effect between context-based customer education and the value of student experience on student loyalty to higher education. These results mean that the stronger context-based customer education will increase student loyalty, as well as high experience values will increase student loyalty to their alma mater. This finding is in line with Peng and Li (2021), that customer education will increase student participation or co-creation (Gunarto & Hurriyati, 2020; Gunarto, Hurriyati, Disman, & Wibowo, 2018) and will have a positive impact on the value of the student experience. Some of the findings of previous researchers are also in line with the results of this study that the value of experience has a positive and significant effect on student loyalty. The value of experience gained during lectures even though it is done online due to the covid-19 pandemic will be able to increase student loyalty to higher education.

**Research Limitations**

This study has limitations in terms of the number of samples where the next researchers can replicate by increasing the number of samples. The sampling technique through the google form is also a drawback in this study, it should be done through direct interviews, so as to produce more accurate data.

**CONCLUSION**

The COVID-19 pandemic that has hit the world, including Indonesia, has forced lectures to be conducted online. Online lectures have certainly become a new habit that is felt by both students and lecturers at universities. The new habit of learning in universities has reduced the attachment or interaction between students and lecturers, so that the physical context is almost impossible for almost 2 years. The results showed that the physical context carried out in universities was not directly influenced by context-based customer education, but the contextual relational had a positive and significant effect on context-based customer education, meaning that although lectures were conducted online, students expected high interaction during learning. This context-based customer education also has a positive and significant effect on the value of student experience and has a positive impact on student loyalty.

The managerial implication of this research is a change in the learning system in higher education from offline to online is expected to maintain interaction and engagement with students. Lectures are not only carried out on the e-learning system, but can be carried out in a blended learning face-to-face via zoom or other media where students can interact directly with
their lecturers. During the COVID-19 pandemic, students did not physically visit campus, but their loyalty could still be created through the values of experience gained and context-based customer education.

REFERENCES


