

SATISFACTION LEVELS OF IPB UNDERGRADUATE STUDENTS TOWARD ONLINE LEARNING SERVICES DURING THE COVID-19 PANDEMIC

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Abstract

The Covid-19 pandemic has forced all educational institutions' teaching and learning processes to change the method to be online. Bogor Agricultural University (IPB) is one of the universities that has participated in implementing online learning starting from March 2020. This study aims to analyze the effect of service quality, customer satisfaction, and net benefit. This research belongs to the type of explanatory research through surveys. Respondents in this study were selected using a voluntary sampling technique with 255 respondents. Data was collected through an online questionnaire using a google form. The data obtained were processed using Microsoft Excel, SPSS version 25, and SMART-PLS 3. The results of the descriptive analysis show that, in general, students are satisfied with the implementation of online learning. Half of the students fall into the category of low net benefits. The influence test results show that service quality had a significant positive effect on customer satisfaction, and customer satisfaction had a significant positive effect on net benefits. Suggestions that can be given are that IPB, lecturers, and departmental staff need to maintain and improve the quality of online learning services from various aspects.

Keywords: e-learning, satisfaction, service quality

TINGKAT KEPUASAN MAHASISWA S-1 IPB TERHADAP LAYANAN PEMBELAJARAN DARING SELAMA PANDEMI COVID-19

Abstrak

Pandemi Covid-19 menyebabkan proses belajar mengajar di seluruh lembaga pendidikan harus diubah metodenya menjadi daring. Institut Pertanian Bogor (IPB) merupakan salah satu universitas yang ikut menerapkan pembelajaran daring terhitung dari bulan Maret 2020. Tujuan umum dari penelitian ini adalah menganalisis pengaruh antara kualitas layanan, kepuasan konsumen, dan *net benefit*. Penelitian ini termasuk jenis penelitian eksplanatori melalui survei. Responden pada penelitian ini dipilih dengan menggunakan teknik *voluntary sampling* dengan jumlah responden sebanyak 255 responden. Data dikumpulkan melalui kuesioner *online* menggunakan *google form*. Data yang diperoleh diolah menggunakan *microsoft excel*, SPSS versi 25, dan SMART-PLS 3. Hasil analisis deskriptif menunjukkan bahwa secara umum mahasiswa sudah merasa cukup puas pada pelayanan selama penyelenggaraan pembelajaran daring. Separuh mahasiswa masuk dalam kategori *net benefit* yang rendah. Hasil uji pengaruh menunjukkan kualitas layanan berpengaruh positif signifikan terhadap kepuasan konsumen, dan kepuasan konsumen berpengaruh positif signifikan terhadap *net benefit*. Saran yang bisa diberikan adalah IPB, dosen, hingga tenaga pendidik departemen perlu mempertahankan dan meningkatkan kualitas pelayanan pembelajaran daring dari berbagai aspek.

Kata kunci: kepuasan, kualitas layanan, pembelajaran daring

INTRODUCTION

The threat of the Covid-19, has spread to various countries worldwide. China has confirmed that it has discovered a new virus called the Coronavirus, parts of the flu virus, such as MERS and SARS. Coronavirus is a zoonosis that is transmitted between animals and humans. All levels of society, such as the elderly, adults, children, pregnant women, and even babies, can be affected by this virus. WHO finally declared this phenomenon a global emergency or pandemic on March 11, 2020 (Ministry of Health, 2020).

Seeing the rapid development of the Coronavirus in Indonesia, requesting that the public reduce density, maintain distance, and provide opportunities for virus infection spread. These policies certainly impact various sectors, so new adaptations need to be made during the pandemic and new average era—one of the sectors affected is the education sector. Government policies during the Covid-19 pandemic caused the teaching and learning process in all educational institutions to be changed to distance learning methods or to learn from home. This is by the Circular Letter of the Ministry of Education and Culture number 4 (2020a) regarding the implementation of education policies during the spread of Covid-19, namely the teaching and learning activities that must be carried out from home through distance learning. Distance learning can be done entirely with the internet (purely online) and face-to-face and online learning (blended learning). However, according to Martoredjo (2020), changes in the teaching and learning process that occur in a planned and unplanned manner cause obstacles in the transfer of knowledge, psychological burden, difficulty managing time, the unpreparedness of architecture and resources lack of support and finance. This, of course, risks the absorption of material that students should master.

Bogor Agricultural University (IPB) is one of the universities that has implemented the policy of learning from home or online learning starting from March 2020. By Circular Number 1876/IT3/KM.01.01/P/T/2021 concerning Policies for the Implementation of Teaching and Learning Activities (KBM) Even Semester for the 2020/2021 Academic Year, entering the odd semester of the 2019/2020 academic year, IPB still chooses to carry out its academic activities online. The Chancellor of IPB took this policy to reduce the risk of spreading the Covid-19 virus in the campus environment (IPB University, 2021). Besides lecture activities, other activities such as consultations, seminars, sessions, graduations, midterm exams, and final exams are also conducted online. Furthermore, students currently conducting research in the laboratory are given leeway to research on campus while still following health protocols. This is the first time that IPB has implemented a complete online learning system. In the first experience of online lectures, students will, of course, focus on the services provided by IPB, lecturers, and departmental educators to students, such as differences in teaching methods for lecturers, online lecture strategies, policies issued, responsiveness to student administration needs, and others that are indeed related to services (Bijami *et al.*, 2018; Cole *et al.*, 2014; Hayatri 2013; Suarman 2015).

Online implementation will run optimally if it is followed by several supporting factors such as infrastructure, quality of information and learning, and quality of institutions and services. The quality of implementation of a reasonable and appropriate system can create a sense of satisfaction for students and lecturers as consumers of higher education institutions (Amos *et al.*, 2017; Barbera *et al.*, 2013; Shin *et al.*, 2015; Siming *et al.*, 2015). In online learning, satisfaction is an essential contributor to student academics. Good quality online learning services can make the learning process more effective because the more organized the online learning system is, the more satisfied students will be with the learning model organized by the college. Satisfaction is a feeling that arises and is felt by someone by comparing expectations with the reality obtained (Darmawan, 2015). Student satisfaction with the online system indicates students' perceptions and expectations of the quality of the online learning system they receive at the University. Syahara *et al.* (2020) explained that the better the quality of service received, the higher student satisfaction. Ideals in service can be measured by service quality with five main dimensions. Service quality can be known by comparing a person's perception of their service with the service they expect (Sumarwan, 2013; Sumarwan, 2011; Sumarwan, 2003). Therefore, measuring service quality on customer satisfaction can use five dimensions. An explanation of the five dimensions of service quality is listed in Table 1.

Table. 1 Dimension of service quality

Dimensions of Service	Description
Reliability	Reliable to deliver the promised service accurately
Responsiveness	Willingness to help customers and provide prompt service.
Assurance	The team's knowledge, courtesy, and ability to convey trust and confidence in the services provided.
Empathy	Provide individual care and attention.
Tangibles	The physical appearance of facilities, equipment, instructors, and communication equipment

Source: Sumarwan (2013)

The implementation of bold learning is undoubtedly very testing and testing the creativity of lecturers in delivering learning materials with an online model. Student goals can be used as a barometer of the success of the implementation of online learning, considering that courageous learning at IPB is carried out thoroughly and is due to the implementation of social distancing in the campus environment. Therefore,

satisfaction indicators will affect students on the application of bold learning. This individual effect is called the net benefit (DeLone & McLean, 2003). The net benefit is an effect given by a system to user needs (Puteri & Arnesia, 2020). According to Rahmat *et al.* (2019), increasing the net benefit of online learning can be done by increasing the intensity of using online learning systems and paying attention to the factors that shape student satisfaction. Students' impact generated and felt can be necessary for the University in implementing learning at IPB.

Distance learning utilizes internet-based technology. Based on this web, students do not learn to replace the conventional or face-to-face education system because, based on the Ministerial Regulation (2013) concerning the implementation of distance learning for higher education, the purpose of implementing the distance education system is as an educational service for students who can participate in face-to-face learning. Distance learning is not easy to organize. Various kinds of obstacles can affect the teaching and learning process, such as limited communication and interaction, the difficulty for students to understand the learning material, lack of resources, expensive quotas, and poor internet connection. These obstacles can make it difficult for students to socialize and affect students emotions and psychology.

The Indonesian Child Protection Commission (2020) surveyed 1700 students from various levels of education on April 13-20, 2020. It was recorded that 76,7 percent of students said they did not enjoy participating in distance learning, and only 23,3 percent thought that distance learning was very impressive. As many as 76,7 percent of students said they were not satisfied because there was no good interaction between students and teachers, students were only given assignments without material explanations and discussions, given very short task collection deadlines, ineffective forms of assignments, being challenging to rest, and internet quota difficulties. Learning online does not mean that lecturers can freely give many assignments to students, but that lecturers should present more practical learning activities. The management of the online system is undoubtedly different from the conventional system, so all components of society must understand and jointly find solutions to problems in the online learning process.

Various policy supports for universities are part of the government's efforts and support for the entire academic community who are constrained by the impact of the Covid-19 pandemic. For example, the government allows a policy of instalments, reductions, and delays for Single Tuition Fees (UKT), scholarships, and internet and credit network assistance (Ministry of Education and Culture, 2020b). This effort ensures that the community still has access to an adequate education. The government and several universities also provide assistance and compensation to lecturers and students, one of which is the Bogor Agricultural University (IPB). IPB also provides adequate learning facilities for the entire campus community, such as providing learning support money for the initial three months of online learning (March-June 2020), quota subsidies, and disbursement of funds for online learning facilities.

It is known that only a few departments at IPB have experienced or experienced the learning process using the blended learning method, one example being the Department of Family and Consumer Science. Of course, this is a challenge for IPB and the Department to organize online learning because the level of readiness and experience between students and lecturers will also vary. Indeed, a pandemic forced IPB to implement a learning system into complete online learning in all faculties and departments. Furthermore, the complete online learning policy is a new thing for IPB because this policy was only implemented in early March 2020.

IPB is certainly not fully prepared to carry out online learning. There is a "rush" in the implementation of online learning, both in terms of the readiness of lecturers, departments, and students. As a form of evaluation of the implementation of online learning in a short period, IPB also improved the online learning process to make it more effective. Facing the "unpreparedness" of organizing online learning certainly raises questions about student satisfaction with implementing online learning at IPB with relatively fast preparation. Student satisfaction can be an essential input to improving the teaching system at IPB during the Covid-19 pandemic so that it is better, more mature, and more planned. The successful implementation of online learning and student satisfaction are important factors for student academic progress, or what can be called net benefits (Prasetya *et al.*, 2020).

The educational situation during the pandemic certainly does have a negative side and a positive side. First, it can trigger the acceleration of the transformation of education in Indonesia to realize the ideals of the development of the digital era 4.0. Second, triggering the emergence of new ideas such as making online learning applications. Third, trigger collaboration between parents and teachers in overseeing the teaching and learning process. The educational situation during the Covid-19 pandemic needs serious attention from the government and educational institutions. Even though there are many challenges and obstacles, learning from home still has to be done as well as possible. However, it is still obligatory to pay attention to facilities, accessibility, and the health of students and teachers. Then, to improve the quality of learning, evaluation

methods can be carried out on the implementation of distance learning to lead to increased understanding of concepts, better problem solving, lower failure rates, and increased satisfaction (Savitri, 2019).

Previous research related to student satisfaction with bold learning has been carried out by several researchers, such as Hakim and Mulyapradana (2020), Nurhayati and Zuhra (2020), and Priyastuti and Suhadi (2020). However, previous research only focused on one department at a university. Moreover, it only analyzed student satisfaction in general. At the same time, this study has a novelty, namely focusing on consumer satisfaction with brave learning services during the pandemic by the University as a whole. Based on the description above, the general purpose of this research is to identify the level of satisfaction of IPB undergraduate students with learning services carried out during the Covid-19 pandemic at IPB.

METHODS

This research belongs to the type of explanatory research through online surveys. This research was conducted at the Bogor Agricultural Institute (IPB) online with the characteristics of the respondents being active undergraduate students of IPB who participated in online learning. The location selection was determined with the consideration that IPB is one of the universities that has participated in implementing the PJJ (Distance Learning) policy starting from March 2020 and is expected to continue indefinitely. In addition, IPB was also chosen, considering that this is the first time IPB has implemented distance learning simultaneously for all faculties.

The population of this study were active undergraduate students of the Bogor Agricultural University (IPB) for the 2020/2021 academic year who took part in online learning. The research population was chosen because not all IPB undergraduate students have online learning experiences, so each student's readiness, experience, and perception will be different towards the implementation of online learning at IPB. The sample taken is all respondents who have filled out the research questionnaire, with a total number of respondents have filled out the questionnaire as many as 260 respondents. After cleaning the data, we obtained several 255 respondents. The sample in this study was taken using a voluntary sampling method or technique. Voluntary sampling is sampling based on the willingness of respondents to participate in research. Researchers used this method to voluntarily invite IPB students to fill out online questionnaires. Researchers monitor the number of samples from the first day to the second week to get the minimum amount of data processed.

The data used in this study were sourced from primary data. Primary data was obtained from a link questionnaire (google form) distributed through several social media such as Whatsapp, Line, Twitter, and Instagram. The distributed online questionnaire contained respondent characteristics, service quality, customer satisfaction, and net profit. The data collection method in this study used an online questionnaire (google form). The scale used to measure service quality, satisfaction, and net benefits in this study uses a 4-point Likert scale, namely 1 for strongly disagree, 2 for disagree, 3 for agree, and 4 for strongly agree. The answer to each instrument will have a gradation of score answers from very negative to very positive. The scores will be added up to become the total score of each variable to be transformed into a score index. The questionnaire will provide instructions for filling out so that respondents can understand each question and run as expected.

The independent variable in this study is service quality (x), which is the service received by students, and can be measured using five dimensions, namely reliability, responsiveness, assurance, empathy, and tangibles (Rohmantara *et al.*, 2017; Sholihin, 2019). Furthermore, the variable used is consumer satisfaction (y1), which is the feeling after comparing expectations with the results obtained and net benefit (y2), the net benefit received or felt by students.

The questionnaire used to measure service quality is a modified result of the research of Berry *et al.* (1988), Ramseook-Munhurrun *et al.* (2010), and Hoon *et al.* (2016). The service quality variable has five dimensions, namely reliability (Cronbach's alpha 0,651), responsiveness (Cronbach's alpha 0,747), assurance (Cronbach's alpha 0,615), empathy (Cronbach's alpha 0,704), and tangible (Cronbach's alpha 0,645). Each dimension consists of 6 statements, so the total questionnaire on the service quality variable is 30 statements. The questionnaire used to measure consumer satisfaction is a modified result of research by Strong (2012) and Fieger (2012). Questionnaire items on the consumer satisfaction variable consist of 6 statements (Cronbach's alpha 0,732). Then, to measure the net benefit variable using a modified questionnaire from Bastola *et al.* (2019) research. The net benefit variable questionnaire item consists of 6 questions (Cronbach's alpha 0,686).

Descriptive analysis was conducted to see the distribution of respondents' characteristics, such as gender, place of residence, and education. The cut-offs used in this study were low (0,0 – 59,9), medium (60,0 – 79,9), and high (80,00 – 100,0). The higher the service quality variable index score, the better the level of student

satisfaction with online learning. Likewise, the higher the index score of the satisfaction level variable, the better the net benefits received by students.

The data obtained were processed using Microsoft Excel software, Statistical Package for Social Science (SPSS) version 25,0, and Smart-PLS 3. The data analysis performed included descriptive analysis and Structural Equation Modeling (SEM). In addition, SEM data analysis using Smart-PLS was carried out to test composite reliability, average variance extracted (AVE), test effects, relationships, and hypotheses. The data needed is obtained from the results of the questionnaire obtained.

RESULT

Respondent Characteristics

The general characteristics of respondents are seen by gender, domicile, faculty, department, and semester. In addition, there are characteristics or supporting items of respondents that are seen based on the type of electronic device used, internet connection, lecture platform, quota assistance, and the obstacles experienced during online learning. Gender in this study was dominated by women (74,9%) compared to men (25,1%). The majority of respondents came from West Java (52,5%). The majority of respondents came from the Faculty of Human Ecology (39,6%) and the Department of Family and Consumer Sciences (28,6%). The distribution results were obtained on the characteristics of respondents based on the origin of the semester. Namely, the respondents were dominated by 8th-semester students (59,6%). Then followed by semester 6 (17,3%), semester 2 (15,3%), and semester 4 (7,8%).

On the supporting characteristics based on the type of electronic device used during online learning, most respondents use mobile phones and laptops/PCs during online learning (79,6%). On the supporting characteristics based on the type of internet connection used, most respondents use an internet connection that comes from cellular data (42,4%). In terms of supporting characteristics based on the type of quota assistance, most respondents chose quota assistance from IPB (76,4%). On the supporting characteristics based on the type of lecture platform, most respondents use Zoom Meeting (34,2%). They were then followed by the Whatsapp platform (28,5%) and Google Meeting (21,4%). Finally, on the supporting characteristics based on the type of lecture constraints, there are three main obstacles felt by respondents during online learning, namely a weak internet network (29,6%), environmental disturbances (28,9%), and power outages (17,5%).

Service Quality

Service quality has five dimensions, namely the dimensions of reliability, responsiveness, assurance, empathy, and tangibles. On the dimension of reliability to measure the performance of lecturers in giving lectures boldly, the majority of respondents agree and are satisfied with the ability of lecturers to explain lecture material well. The results of the respondents' assessment were in the moderate category (61,6%), with an average achievement of 68,58. One thing that makes students in the moderate category is that students feel they are not too able to make the lecture atmosphere more fun.

In the responsive dimension to measure the responsiveness of lecturers and departmental educators, most respondents agree and are satisfied with the lecturer's questions answering questions during the lecture session. The results of the respondents' assessment were in the medium category (61,2%), with an average achievement of 68,50. One of the things that put student assessments in the moderate category is that students feel that some lecturers have not answered student questions outside of class hours.

In the assurance dimension to measure the ability of lecturers and departmental educators to meet student needs, the majority of respondents agree and are satisfied with the guarantees provided by lecturers and teaching staff to complete the lecture material. The results of the respondents' assessment were in the moderate category (62,7%), with an average achievement of 67,49. One thing that makes student assessments in the medium category is that students feel they do not have the desire to follow the lecture material until students feel clear.

In the empathy dimension to measure the concern of lecturers and departmental educators, the majority of respondents agree and are satisfied with the concern of lecturers to help overcome problems experienced during lectures, such as difficulties in participating in video conferences. The results of the respondents' assessment were in the medium category (61,2%), with an average achievement of 71,96. One thing that makes student assessments in the moderate category is that students feel that some lecturers cannot understand the obstacles experienced by students during courageous learning.

On the tangible dimension to measure physical evidence, most respondents agree and are satisfied with the attractive and neat appearance of the lecturer during teaching. The results of the respondent's assessment calculation are in the medium category (62,0%), with an average achievement of 71,13. One thing that makes student assessments in the moderate category is that students feel that the PPT design for lecture materials is less attractive and the design seems monotonous.

The analysis results on all dimensions, in general, show that students are pretty satisfied with the services provided by IPB, lecturers, and departmental educators during the implementation of online learning. This is evidenced by the average of all items in the agreed range. Details of the distribution of respondents based on the category of each dimension are shown in Table 2.

Table 2. Distribution of respondents based on the category of each dimension

Dimensions	Category						Min-Max	Mean \pm SD
	Low < 60		Medium 60-79,9		High \geq 80,0			
	n	%	n	%	n	%		
Reliability	52	20,4	157	61,6	46	18,0	38,8 - 100	68,5 \pm 12,1
Responsiveness	53	20,8	156	61,2	46	18,0	22,2 - 100	68,5 \pm 14,3
Assurance	56	22,0	160	62,7	39	15,3	27,7 - 100	67,4 \pm 12,7
Empathy	38	14,9	156	61,2	61	23,9	44,4 - 100	71,9 \pm 13,1
Tangible	35	13,7	158	62,0	62	24,3	22,2 - 100	71,1 \pm 13,3

Consumer Satisfaction

The results showed that most respondents were satisfied with the platform used by lecturers during the online learning process. It is known that the majority of lecturers and students use the Zoom Meeting, Whatsapp, Google Meeting, and Youtube platforms to learn and teach online. The majority of respondents were also satisfied with the provision of quota assistance and KBM money provided by IPB. The results of the respondent's assessment calculation are in the medium category (63,9%), with an average achievement of 69,24. The analysis results show that although the distribution of respondents' answers is in the moderate category, overall, students are pretty satisfied with the implementation of online learning at IPB during the Covid-19 pandemic. This is evidenced by the average of all items in the agreed range. Details of the distribution of respondents by category of consumer satisfaction are shown in Table 3.

Net Benefits

The results showed that most respondents agreed that online lectures could save transportation money. The majority of respondents also agree that students discover new skills during online lectures. The results of the respondent's assessment calculation are in a low category (51,8%) and then medium (38,8%). One thing that makes students' assessments in the low category is that students feel that learning online does not increase their desire to learn. However, although the distribution of respondents' answers is in a low category, overall, students agree with the positive effects obtained by studying online. This is evidenced by most of the items in the agreed range average. Of course, improvements are still needed to achieve a high net benefit category. Details of the distribution of respondents by net benefit category are shown in Table 3.

Table 3. Distribution of respondents based on the variable categories of consumer satisfaction and net benefit

Variable	Category						Min-Max	Average \pm SD
	Low < 60		Medium 60-79,9		High \geq 80,0			
	n	%	n	%	n	%		
Consumer Satisfaction	45	17,6	163	63,9	47	18,4	27,7 - 100	69,2 \pm 13,01
Net Benefit	132	51,8	99	38,8	24	9,4	11,1 - 100	58,4 \pm 16,8

PLS Analysis

In evaluating the outer model, measurements were made to determine the value of the validity and reliability of the model by looking at the AVE value and the composite reliability value. A low AVE value can be increased by eliminating items with a low loading factor value. After the elimination process, the AVE and composite reliability values that have met the requirements and are considered valid and reliable are obtained, namely the AVE value of 0,50 and a reliable composite of 0,70. The results of the AVE value and composite reliability are shown in Table 4.

Table 4. Results of average variance extracted (AVE) and composite reliability

Dimensions	Composite reliability	AVE
Reliability	0,831	0,711
Responsiveness	0,823	0,699
Assurance	0,771	0,628
Empathy	0,803	0,576
Tangible	0,850	0,740
Satisfaction	0,831	0,552
Net Benefit	0,857	0,751
Gender	1,000	1,000
Faculty	1,000	1,000

In evaluating the inner model, measurements are made to determine the relationship, influence, and truth of the hypothesis. In addition, hypothesis testing was conducted to answer the research equation. Hypothesis testing can be seen from the value of t-statistics. The limits for rejecting or accepting the proposed hypothesis are t-statistics $> 1,96$ and p-values $< 0,05$.

The Path Coefficients output in Table 5 shows that the characteristics of respondents based on gender and faculty have no significant effect on student satisfaction in online learning (H1 is rejected). This is evidenced by the path coefficient value of the respondent's characteristics to customer satisfaction of -0,004, t-statistics of 0,093, and p-values of 0,926. The test results of the effect of each service quality dimension on consumer satisfaction indicate a positive and significant influence between all dimensions (reliability, responsiveness, assurance, empathy, and tangible) on student satisfaction in the implementation of online learning. This is evidenced by acquiring each t-statistic value $> 1,96$ and p-values $< 0,05$. These results indicate that the service quality variable significantly affects customer satisfaction (H2 is accepted). Consumer satisfaction is also known to have a positive and significant effect on net benefits (H3 is accepted). This is evidenced by the value of the path coefficient of consumer satisfaction to net benefits of 0,360, t-statistics of 6,183, and p-values of 0.000. In addition, the measurement model is presented in detail in Figure 1.

Table 5. The results of the analysis of the inner model path coefficient

Variables	Path Coefficients	t-statistics	p-values	Descriptions
Service Quality → Reliability	0,689	16,087	0,000	Significant
Service Quality → Responsiveness	0,757	21,635	0,000	Significant
Service Quality → Assurance	0,726	21,883	0,000	Significant
Service Quality → Empathy	0,825	31,216	0,000	Significant
Service Quality → Tangible	0,588	10,546	0,000	Significant
Service Quality → Consumer Satisfaction	0,703	19,861	0,000	Significant
Satisfactions → Net Benefit	0,361	6,239	0,000	Significant

Table 5. The results of the analysis of the inner model path coefficient (Advanced)

Variables	Path Coefficients	t-statistics	p-values	Descriptions
Respondent Characteristics → Gender	-0,735	1,420	0,156	Not significant
Respondent Characteristics → Faculty	0,756	1,348	0,178	Not significant
Respondent Characteristics → Consumer Satisfaction	-0,004	0,093	0,926	Not significant

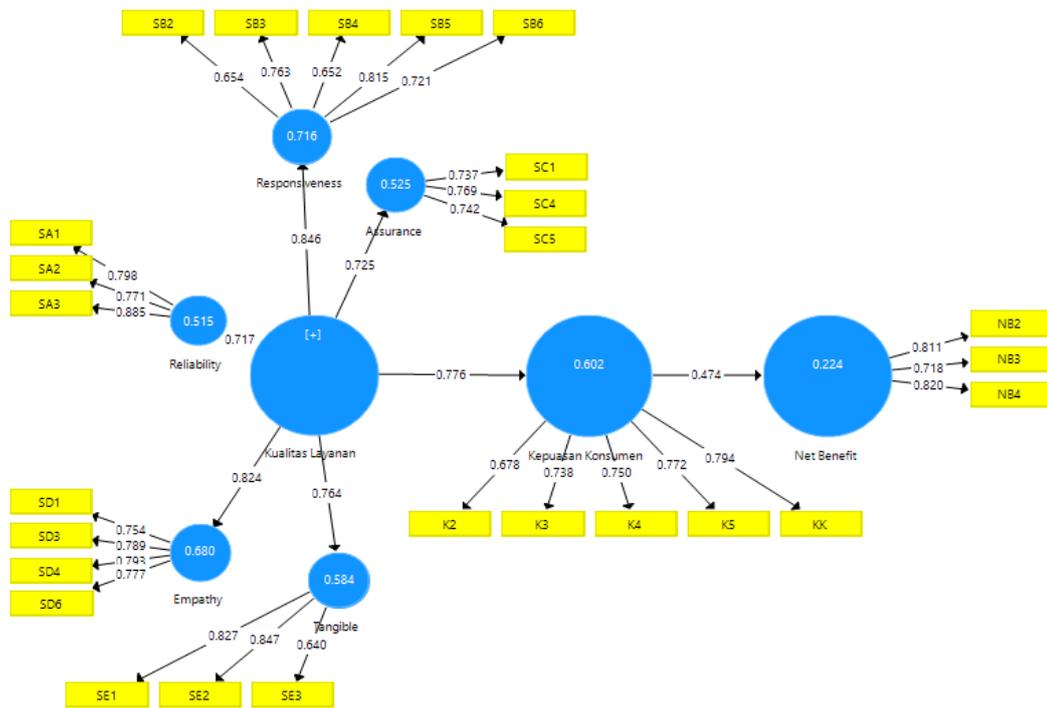


Figure 1. The results of the evaluation of the measurement model

The relationship test using SEM is shown in Table 5, a section of the path coefficient. The analysis results show no significant relationship with the respondent's gender indicator because the path coefficient is negative and the path coefficient is $< 0,050$. The path coefficient on the indicator below 0,50 does not explain the relationship. This is also evidenced by the results of the analysis of the difference test using SPSS, which shows that there is no difference in overall average satisfaction between female and male respondents (Equal variances not assumed Sig. (2-tailed) $> 0,05$). However, the characteristics of respondents based on faculty there is a positive relationship (0,756). In addition, the quality of service for each dimension also shows a significant positive relationship. Likewise, the service quality variable has a significant positive relationship with Consumer Satisfaction, and Consumer Satisfaction has a significant positive relationship with net benefits.

DISCUSSION

The results showed that most IPB students were more satisfied with the quota assistance that came from IPB than the quota from the Ministry of Education and Culture. This was because the IPB quota was considered more capable of meeting the online learning needs of students. In addition, quota assistance can increase student satisfaction by facilitating lecture activities (Anggraini & Purwacaraka, 2020; Wahyudin, 2021). Although currently, the provision of IPB quotas has been transferred to the disbursement of funds for online learning facilities, IPB students can still benefit from the cooperation policy between IPB and Telkomsel, namely the availability of special corporate packages, so that students can use online learning facility funds

to purchase internet quotas with lower price. Then, the obstacles experienced by students during online learning do not only come from an internal aspect but also from an external aspect, namely obstacles to a slow and weak internet network, environmental disturbances, to electricity that often goes out.

The results of the descriptive analysis show that the quality of services provided by IPB, lecturers, and departmental educators is generally reasonable. This can be shown from the number of satisfaction responses from respondents to the conditions in each dimension of service quality. Service quality is an effort to fulfil consumer needs and desires to balance consumer expectations (Noer, 2016). In the reliability dimension, the majority of respondents agree and are satisfied with the ability of the lecturer to explain the lecture material well. In addition, the lecturer can use language that students easily understand. The results of the respondent's assessment calculation are in the medium category. One thing that makes student assessments in the medium category is that students feel that some lecturers have not been able to make online lectures more enjoyable. The ability of lecturers and staff to liven up the lecture atmosphere is essential to increasing student enthusiasm for learning (Napitupulu, 2020; Syakur, 2018; Taman *et al.*, 2013).

The responsiveness dimension relates to the responsiveness of lecturers and departmental educators. The majority of respondents agree and are satisfied with the responsiveness of lecturers to answer questions during lecture-discussion sessions and the readiness of departmental educators to meet student administrative needs. The results of the respondent's assessment calculation are in the medium category. One of the things that put student assessments in the moderate category is that students feel that some lecturers are not yet ready to answer student questions outside of class hours. The readiness of the lecturers to answer all student questions is an essential thing in lecture activities because this will increase the student satisfaction index for campus services and majors (Bhakti & Rahmawati, 2018). However, on the other hand, students must be able to apply good ethics to lecturers and pay attention to work time if they want to ask questions or discuss (Arma, 2020).

The assurance dimension relates to the ability of lecturers and departmental educators to meet student needs. The majority of respondents agree and are satisfied with the guarantees provided by lecturers in the form of providing teaching materials to complement lecture materials and the friendliness and courtesy of departmental educators while serving students online. The results of the respondent's assessment calculation are in the medium category. One thing that makes student assessments in the moderate category is that students feel that some lecturers do not have the desire to repeat lecture material until students feel clear. One of the essential things that lecturers do is the assurance dimension, namely applying varied and holistic or comprehensive learning methods (Sukmanasa, Novita, & Siti, 2017). However, students are expected to be actively involved directly by asking if there is something that is not understood.

The empathy dimension relates to the concern of lecturers and departmental educators. The majority of respondents agree and are satisfied with the concern of lecturers to help students overcome problems experienced during online lectures, such as difficulties in joining video conferences. The results of the respondent's assessment calculation are in the medium category. One thing that makes student assessments in the moderate category is that students feel that some lecturers cannot understand the obstacles experienced by students during online learning. The form of empathy that a lecturer and teaching staff can do is to encourage and motivate students to do their best learning and understand students' difficulties in the learning process (Irawati & Jonatan, 2020).

The tangible dimension is related to physical evidence. The majority of respondents agree and are satisfied with lecturers' attractive and neat appearance during teaching and are satisfied with the choice of learning platforms, such as Zoom Meetings, WhatsApp, Google Meetings to YouTube. The results of the respondent's assessment calculation are in the medium category. One thing that makes student assessments in the moderate category is that students feel that the PPT design for lecture materials is less attractive and the design seems monotonous. Each dimension certainly has several advantages and disadvantages that need to be maintained and improved to improve the quality of online learning services. However, in general, IPB undergraduate students are considered satisfied with the services provided by IPB, lecturers, and departmental educators during online learning.

The research results on the Consumer Satisfaction variable indicate that the majority of respondents are satisfied with the platform used by lecturers during the online learning process. It is known that the majority of lecturers and students use the Zoom Meeting, WhatsApp, Google Meeting, and YouTube platforms to learn and teach online. The majority of respondents were also satisfied with quota assistance and teaching and learning activities (KBM) provided by IPB. The results of the respondent's assessment calculation are in the medium category. The analysis results show that although the distribution of respondents' answers is in

the moderate category, overall, students are satisfied with the implementation of online learning at IPB during the Covid-19 pandemic. This is evidenced by the average of all items in the agreed range.

The research results on the net benefit variable also show that the majority of respondents agree that online lectures can save transportation money. The majority of respondents also agree that students discover new skills during online lectures. The results of the respondent's assessment calculation are in the low and then medium categories. One thing that makes students' assessments in the low category is that students feel that learning online does not increase their desire to learn. Of course, improvements are still needed to achieve a high net benefit category.

The results of the relationship test analysis showed that the quality of service in each dimension also showed a significant positive relationship. The service quality variable has a significant positive relationship with Consumer Satisfaction. In addition, consumer Satisfaction has a significant positive relationship with net benefits. The higher and better the service quality, the higher and better the Consumer Satisfaction. The higher and better the Consumer Satisfaction, the higher and better the net benefits for students.

The test results of the effect of each service quality dimension on Consumer Satisfaction indicate that there is a positive and significant influence between all dimensions and student satisfaction in the implementation of online learning. The results of this study are in line with the research of Pham *et al.* (2019). There is a positive relationship between the quality of online learning services and satisfaction. Student satisfaction in online learning is influenced by service quality, such as how lecturers teach, interact with students, student learning facilities, sympathy and motivation received by students, and a supportive service system (Harrati *et al.*, 2016). This shows that the better universities, faculties, and departments provide services during online lectures, the better and higher the student satisfaction. The results of this study indicate that the services provided by each faculty and department at IPB have been able to meet student expectations during online learning.

The research results of Panday (2019) showed that the services and facilities provided by the faculty have a significant relationship with student satisfaction. The study also said that the success of online learning rests on the faculty's commitment and the faculty's willingness to develop a sound service system during online learning (Bolliger *et al.*, 2009). Then, the dimension that has a dominant influence on service quality and student satisfaction is the dimension of empathy. This indicates that the attention and care given is the main thing seen and liked by students. Service quality is essential for every student to be satisfied in undergoing lectures, especially when online. Therefore, IPB needs to pay attention and improve its services to increase student satisfaction in online learning.

The influence test results show that Consumer Satisfaction has a positive and significant effect on the net benefit. This means that students who are satisfied with the application of online learning will get and feel a positive effect (net benefit). The results of this study support previous studies, such as research conducted by Seliana *et al.* (2020), which proves that online learning satisfaction is related to and affects the perceived effect of online learning (net benefit). Yaumi (2018), in his research, explains that a good and optimal quality of online learning services can affect student satisfaction and student net benefits such as increasing interest in learning, improving memory, improving student learning outcomes, saving costs, time, and academic success. The net benefits felt by students can be created by increasing the factors that shape student satisfaction during online lectures.

The limitation of this research is that the number of male and female respondents is less balanced, so women than men dominate the analysis results. Therefore, it is essential to see the difference in satisfaction in balance. Furthermore, the respondents were only undergraduate or undergraduate IPB students who were willing to become volunteers to fill out the questionnaire, so this study did not describe IPB students as a whole.

CONCLUSION AND SUGGESTION

Respondents in this study were dominated by women from the Faculty of Human Ecology, students from the Department of Family and Consumer Sciences, and domiciled in West Java. The relationship test results shown in the PLS analysis path coefficient show that there is no relationship between the sex of the respondent and Consumer Satisfaction. However, the characteristics of respondents based on faculty have a positive relationship with Consumer Satisfaction. The service quality variable is also significantly positively related to Consumer Satisfaction. Consumer Satisfaction has a significant positive relationship with net benefits. The higher and better the service quality, the higher and better the Consumer Satisfaction. The higher and better the Consumer Satisfaction, the higher and better the net benefits for students. The entire

distribution of respondents' answers to the questionnaire items in the service quality and consumer satisfaction variables is in the medium category, while the distribution of respondents' answers in the net benefit variable is in a low category. Although the distribution of respondents' answers is in the low and medium categories, overall, IPB undergraduate students are quite satisfied with the implementation of online learning. The results of the PLS influence test analysis showed a significant effect on the service quality variable on the Consumer Satisfaction variable. The analysis of the influence test also showed a significant influence on the variable Consumer Satisfaction on the variable net benefit. In the analysis of the difference test, it was found that there was no difference in the overall average satisfaction between female and male respondents.

IPB, lecturers, and departmental educators need to pay attention to, improve, and evaluate the quality of online learning services from all aspects, such as reliability, responsiveness, assurance, care and empathy, and student learning facilities. Students who are satisfied with the services provided by the University will undoubtedly have a good effect on academic fluency. The suggestion for further research is that researchers can include more diverse characteristics of respondents. In addition, further research can examine other test variables such as system quality and information quality that can affect consumer satisfaction and net benefits. It is also hoped that further research can be carried out on IPB vocational school students, IPB postgraduate students, or even expand the research location. Respondents can ask questionnaire statements that have not been asked and investigated in this study in further research.

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