

ANALYSIS OF SATISFACTION LEVEL AND NET BENEFIT IPB UNDERGRADUATE STUDENTS TOWARDS THE USE IPB MOBILE FOR STUDENT APPLICATION

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Abstract

IPB University implements a mobile-based management information system through the IPB Mobile for Student application to bring technological innovation closer and realize transformation into a digital campus. This study aims to analyze the perception of quality, level of satisfaction and net benefit felt by S1 IPB students towards the IPB Mobile for Student application. This research is a quantitative research using explanatory design. This research was conducted on IPB students using voluntary sampling techniques so that 306 respondents were obtained. Data is collected through tools in the form of questionnaires that are distributed online using google forms. The data obtained were processed using Microsoft Excel, SPSS version 25, and SEM-LISREL 8.80. The results of the influence test showed a positive and significant influence on the perception of quality on user satisfaction and user satisfaction had a significant positive effect on net benefits. The advice that can be given is that users are expected to provide input on the shortcomings in the application so that IPB University as an application developer can improve the quality of the IPB Mobile for Student application.

Keywords: IPB Mobile for Student, net benefit, perception of quality, satisfaction level

ANALISIS TINGKAT KEPUASAN DAN NET BENEFIT MAHASISWA PROGRAM S1 IPB TERHADAP PENGGUNAAN APLIKASI IPB MOBILE FOR STUDENT

Abstrak

IPB University melakukan penerapan sistem informasi manajemen berbasis mobile melalui aplikasi IPB Mobile for Student untuk mendekatkan inovasi teknologi serta mewujudkan transformasi menjadi digital campus. Penelitian ini bertujuan untuk menganalisis persepsi kualitas, tingkat kepuasan dan net benefit yang dirasakan mahasiswa S1 IPB terhadap aplikasi IPB Mobile for Student. Penelitian ini merupakan penelitian kuantitatif dengan menggunakan desain eksplanatori. Penelitian ini dilakukan pada mahasiswa IPB dengan menggunakan teknik *voluntary sampling* sehingga didapatkan responden sebanyak 306 orang. Data dikumpulkan melalui alat bantu berupa kuesioner yang disebarakan secara *online* menggunakan google form. Data yang diperoleh diolah menggunakan *Microsoft Excel*, SPSS versi 25, dan SEM-LISREL 8.80. Hasil uji pengaruh menunjukkan adanya pengaruh positif dan signifikan pada persepsi kualitas terhadap kepuasan pengguna dan kepuasan pengguna berpengaruh positif signifikan terhadap net benefit. Saran yang bisa diberikan adalah pengguna diharapkan memberikan masukan mengenai kekurangan pada aplikasi sehingga IPB University sebagai pengembang aplikasi dapat meningkatkan kualitas pada aplikasi IPB Mobile for Student.

Keywords: IPB Mobile for Student, keuntungan bersih, persepsi kualitas, tingkat kepuasan.

INTRODUCTION

Entering the industrial revolution 4.0, the use of technology and information has become a necessity for every individual, not only business and government people but also for educational institutions (Utomo & Mariana, 2011). Educational institutions of course cannot avoid global currents, so they must take part in transforming. In other words, educational institutions must be proactive in dealing with any changes and developments that occur (Azhar, 2017). In supporting the smooth running of operational activities, educational institutions really need information technology to speed up the work process so that is more effective and efficient or avoid wasting time and energy (Fitriani & Pakpahan, 2018).

The World Health Organization (WHO) officially declared the coronavirus (Covid-19) as a pandemic on March 9, 2020 (Task Force for Handling covid-19, 2020). The covid-19 pandemic has caused many changes, that have forced all parties to adapt to new habits in all activities including educational activities. Based on Circular Letter of the Ministry of Education and Culture number 4 (2020) concerning the Implementation of Education Policies in the Emergency Period of the Spread of Covid-19, there is a change in the learning process to online (Ministry of Education and Culture, 2020). This policy has been implemented by the majority of educational institutions, one of which is IPB University. According to Ameylda (2020), the implementation of online learning will run optimally if it is followed by several supporting factors such as infrastructure, quality of information and learning, as well as the quality of institutions and services. In line with the conditions that occurred, IPB made improvements and improved the management information system (MSI) to facilitate mobility without having to meet face to face.

Educational institutions in Indonesia have experienced innovations from year to year in the form of infrastructure used to facilitate the course of teaching and learning activities and the entire education system (Ningsih, 2019). Higher education institutions must look for effective and creative ways to attract and maintain stronger relationships with students (Hasan, Palaniappan, Mahmood, Abbas, & Sarker, 2009). One of the important factors in the strategy is the development of information systems (Utomo, Ardianto, & Sisharini, 2017). In 2018, IPB University implemented a mobile-based management information system, one of which was IPB Mobile for Student (IPBMfs). This application was developed by the Directorate of Information Systems and Digital Transformation (Disintal) under the leadership of Ir. Julio Adisantoso, M.kom in order to bring technological innovation closer and realize the transformation of IPB University into a digital campus by improving digital capabilities and making all IPB components connected (IPB Campus Newspaper, 2018).

The availability of information technology is a necessity for higher education institutions to support the educational process (Umanailo, 2017). The results of a survey by Statista (a German company that specializes in market and consumer data) released in July 2021, stated that smartphone users in Indonesians reached 183,68 million. This figure shows that smartphone ownership has become commonplace. Smartphones are not only a means of communication but have become a means of working (Subandi, 2018). Therefore, the academic mobile application will of course be easy to reach especially by students.

Every application must be designed as well as possible to meet user needs (Lestari *et al.*, 2020). As in the IPBMfs application which is designed to provide convenience and services to students to improve the quality of education (ICT IPB, 2018). Basically, the measurement of success or failure in implementing an application system is based on user satisfaction in using the application system (Rafiq & Aswin 2015). Evaluation of user satisfaction is one of the consumer decision models (Sumarwan, 2017). Student satisfaction as consumers of higher education institutions can be influenced by the quality of the system, the quality of information and the quality of good and appropriate services (Widodo *et al.*, 2016). Student satisfaction as application users is important as a capital for the continuity of higher education (Rafiq & Aswin, 2015).

The IPBMfs application is designed to provide more effective and efficient services, so that the dissemination of information between lecturers, education staff, and students runs easier and faster (ICT IPB, 2018). The IPBMfs application is used for various information and academic service activities. However, in the IPBMfs application, there are still some obstacles, such as difficulty coordinating with the department regarding the necessary data and quite often experiencing problematic servers due to booming visit traffic, causing the application to be difficult to access by visitors (Zahwanda, 2018). Besides the obstacles that occur, there are no other options or alternative applications that can be used by students, so it requires every student to continue to download and use the application.

According to Sensuse and Prayoga (2010), in order for an application to be effective, efficient and can provide satisfaction to users, it must be able to provide opportunities for users to carry out their activities on the application as well as possible. Over time, there have been several improvements and improvements to the IPBMfs application. However, there are several factors technically and non-technically a problem that must be corrected and improved. Improvements and application improvements need to be made in order to create services that are expected to be able to satisfy the needs of students. Optimal satisfaction can be achieved by refining the factors related to the quality of IPBMfs.

Previous research on user satisfaction has been carried out by several researchers, such as Amarin and Wijaksana (2021), Widiastuti, Haryono and Said (2019), Utomo *et al.* (2017), Ferdini *et al.* (2013) and Hidayat and Yusrawati (2012). However, in previous studies satisfaction was measured directly through system quality, information quality, and service quality. However, this study has the ability to change three

variables, namely system quality, information quality, and service quality into dimensions that are united into perception of quality variables.

Based on the description above, the objectives in this study are 1) Identifying student characteristics, perceptions of quality, student satisfaction and net benefits in the use of the IPBMfs application, 2) Analyzing the relationship between perceptions of quality and user satisfaction, and net benefits, and 3) Analyzing the influence of perception of quality on user satisfaction, and net benefits.

METHODS

This research is a quantitative research using explanatory design. Data collection is carried out online through a google form which is distributed through social media such as Instagram, line and whatsapp on March 2-18, 2022. The criteria for respondents involved are active students of the IPB University S1 Program who are or have used the IPBMfs application. Sampling was carried out purposive with voluntary sampling techniques. The number of respondents who filled out the questionnaire was 307 students. After cleaning the data, 306 students were obtained.

The data used in this study is in the form of primary data and secondary data. The primary data needed in this study include: 1) Characteristics of respondents, 2) Perception of quality, 3) User satisfaction and 4) Net benefit. Primary data are obtained from the results of filling out questionnaires. The secondary data used is in the form of the number of active students of IPB University for the 2020 academic year obtained from the Directorate of Education Administration of IPB University.

This study used three variables, namely perception of quality, user satisfaction and net benefit. Satisfaction is the user's response to the conformity between the level of importance and performance felt after use (Rahardjo, Suharni, & Majidah, 2018). According to Utomo, Ardianto, and Sisharini (2017), after satisfaction is formed, students will feel the net benefits provided. Net benefit is the net result or profit felt by individuals after implementing an information system (Saputro, Budiyo, & Santoso, 2015).

The questionnaire used is the result of a modification built by adapting from several research instruments. Perception of quality variables use three dimensions based on the research of DeLone and McLean (2003), namely system quality, information quality and service quality. The questionnaire used to measure perception of quality consists of 25 statements that are the result of modifications from the research of Huse (2017), and Syarif (2021). The user satisfaction variable questionnaire consisted of 5 statements from the results of the modification of the Saputro and Arafat (2020) research. Then, the net benefit variable consists of two dimensions, namely efficiency and effectiveness. The net benefit variable questionnaire used had a total of 8 statements of modified results from the research of Huse (2017).

The questionnaire used has been tested in advance. Reliability tests are carried out to measure the degree of reliability of a variable. A variable is declared reliable when the value of Cronbach's alpha is greater than 0,6. The reliability value in each variable is the perception of quality (0,911), user satisfaction (0,884) and net benefit (0,862). From the results of the reliability test, it can be seen that each variable in this study is reliable so that it is suitable for use. The scale used to measure service quality, satisfaction, and net benefit in this study used a 4-point Likert scale, namely 1 for strongly disagree, 2 for disagree, 3 for agree, and 4 for strongly agree.

Descriptive analysis in this study was used to identify respondents' characteristics, perceptions of quality, satisfaction and net benefits felt by students in the IPBMfs application. The cut-offs used in this study were low (0,0 – 59,9), medium (60,0 – 80,0), and high (80,1 – 100,0). The higher the index score of the perception of quality variable, the better the level of satisfaction and net benefit felt by students towards the IPBMfs application.

The data that has been collected is processed using the Microsoft Excel program version 2019, Statistical Program for Social Sciences (SPSS) version 25 and SEM-LISREL 8.80. The process of cleaning and assigning code to data is carried out using Microsoft Excel version 2019. Descriptive analysis, Validity test and reliability test were performed using SPSS version 25. Influence tests, relationship tests and data hypotheses were conducted through SEM-LISREL 8.80.

RESULTS

Characteristics of Respondents

The general characteristics of respondents were viewed based on gender, department, domicile, semester, number of credits and internet connection. The number of respondents in this study was 306 respondents.

In this study, more than two-thirds (69%) of respondents were female and the rest (31%) were male. More than half (59,5%) of respondents came from the Faculty of Human Ecology (FEMA). When viewed from the department, the most respondents came from the Department of Communication Science and Community Development (SKPM), which was 27,5 percent. Judging from the domicile of respondents, more than two-thirds (67%) of respondents came from the province of West Java. The characteristics of respondents based on semester, dominated by eighth semester students, were 58,5 percent. The number of respondents' credits was dominated by students who had ≤ 15 credits, which was 58,2 percent. The majority of respondents used both internet connections, namely in the form of cellular quota/data and wifi as much as 79,7 percent.

Perception of Quality, User Satisfaction, and *Net Benefit*

In this study, the perception of quality variables were divided into three dimensions, namely system quality, information quality and service quality. System quality is measured through ease of use, flexibility, system reliability, and system security. Then, the quality of information is measured through indicators of information completeness, ease of understanding, format, relevance, and accurate. Furthermore, the indicators measuring the quality of service in the application include assurance, responsiveness and empathy. The results of the index score calculation showed that the perception of respondents' quality was in the low category (15%), medium category (67%) and high category (12,3%) with an average achievement of 71,13. These results show that improvements and improvements are needed regarding the quality of the IPBMfs application.

User satisfaction variables can be measured through the overall satisfaction dimension. The majority of respondents strongly agree that respondents are satisfied with the IPBMfs application as a whole and also agree that the IPBMfs application is in line with expectations. The calculation results showed that respondent satisfaction was in the low (5,6%), medium (57,8%), and high (36,6%) categories. These results show that respondent satisfaction is still in the medium category.

The net benefit variable is measured through the efficiency and effectiveness of an application to show the impact of IPBMfs on both positive and negative performance felt by students. User satisfaction variables can be measured through the overall satisfaction dimension. The majority of respondents strongly agree that the use of IPBMfs can save time and agree that the IPBMfs application can help increase productivity in completing tasks. The calculation results showed that the net benefit felt by respondents was in the low (13,1%), medium (63,1%), and high (23,9%) categories. These results show that respondents' satisfaction is still in the medium category, which indicates that improvements and improvements are still needed related to the IPBMfs application. The results of the distribution of respondents based on index values and averages on the variables of perception of quality, user satisfaction and net benefit are presented in Table 1.

Table 1 Distribution of respondents based on index values and averages on the variables of perception of quality, user satisfaction and net benefit

Variable	Category						Min-Max	Average \pm SD
	Low (<60)		Medium (60-79,9)		High (≥ 80)			
	n	%	n	%	n	%		
Perception of quality	48	15,7	205	67,0	53	17,3	41,33-97,33	71,13 \pm 10,88
User Satisfaction	17	5,6	177	57,8	112	36,6	33,00-100,00	75,95 \pm 15,21
Net Benefit	40	13,1	193	63,1	73	23,9	41,67-100,00	73,03 \pm 12,89

Relationship Analysis

The relationship test was carried out to see the relationship between the characteristics of respondents (gender, domicile, semester, number of credits, and internet connection) with variables of perception of quality, user satisfaction and net benefit. The relationship test was carried out using the cross tabulation method and spearman correlation to see the relationship of each respondent's characteristic indicator to the variables of perception of quality, user satisfaction and net benefit. The relationship between respondents' characteristics and the variables of perception of quality, user satisfaction and net benefit is presented in Table 2.

Table 2 Relationship between respondent characteristics and variables of perception of quality, user satisfaction and net benefit

Characteristics of Respondents	<i>p-value</i>		
	Perception of quality	User Satisfaction	<i>Net Benefit</i>
Gender*	0,669	0,859	0,532
Domicile*	0,995	0,757	0,798
Semester**	0,653	0,229	0,312
Number of Credits**	0,503	0,860	0,734
Internet Connection*	0,001	0,000	0,000

Note: *analyzed with Chi-square, **analyzed with Spearman correlation

Table 2 shows the relationship between respondents characteristics and the variables of perception of quality, user satisfaction and net benefit. Based on the results of the relationship test, it can be seen that based on gender, domicile, semester, and the number of credits, it shows a p-value of $>0,05$. This means that there is no relationship between gender, domicile, semester, and the number of credits with all variables. However, in the internet connection indicator, it can be seen that the p-value of the $\leq 0,05$. That is, there is a positive and significant relationship between internet connection and the perception of quality.

Influence Analysis

The results of the overall match test of the model can be accepted with a good fit description which can be seen from the RMSEA, RMR, GFI, AGFI, IFI, NFI, and CFI values. The overall value of the model match test based on the conformity criteria is presented in Table 3.

Table 3 Overall match of the model

Goodness-of-fit	Cut-off-Value	Result	Information
Root Mean Square Error of Approximation (RMSEA)	$\leq 0,08$	0,074	Good fit
Root Mean Square Residual (RMR)	$\leq 0,1$	0,019	Good fit
Goodness of Fit Index (GFI)	$0,80 \leq \text{GFI} < 0,90$	0,80	Good fit
Adjusted Goodness of Fit Index (AGFI)	$0 < \text{AGFI} < 1$	0,76	Good fit
Incremental Fit Index (IFI)	$\geq 0,9$	0,96	Good fit
Normed Fit Index (NFI)	$0,8 \leq \text{NFI} \leq 0,9$	0,94	Good fit
Comparative Fit Index (CFI)	$\geq 0,9$	0,96	Good fit

Table 3 shows that the overall match test of the model is acceptable with a good fit caption. RMSEA is one part of absolute fit indices used to compensate for chi square statistics in large samples. RMSEA values smaller than or equal to 0,08 are the conditions for acceptance of the model. Based on the calculation results obtained an RMSEA value of 0.074, which means that it is included in the good fit criteria and the model is acceptable. After that, an RMR value of 0,019 was obtained; GFI of 0.80; AGFI of 0,76; IFI of 0,96; NFI of 0,94; and a CFI of 0,96 so that the model has been included in the good fit criteria.

The Measurement Model Fit test is carried out after the entire model has been analyzed for suitability which is measured based on the validity and reliability of the indicator variables against the latent variables. An indicator is said to be valid if it has a tolerable standardized loading factor value of $\geq 0,5$. The results of the standardized solution match test in the initial measurement, showed the value of the standardized loading factor $<0,5$ on the KS5, KS6, KL5 and KL6 indicators so that it needs to be eliminated. After elimination, the standardized loading factor value on each indicator has met the requirements so that it is said to be valid. The results of the evaluation of the measurement model are presented in Figure 1.

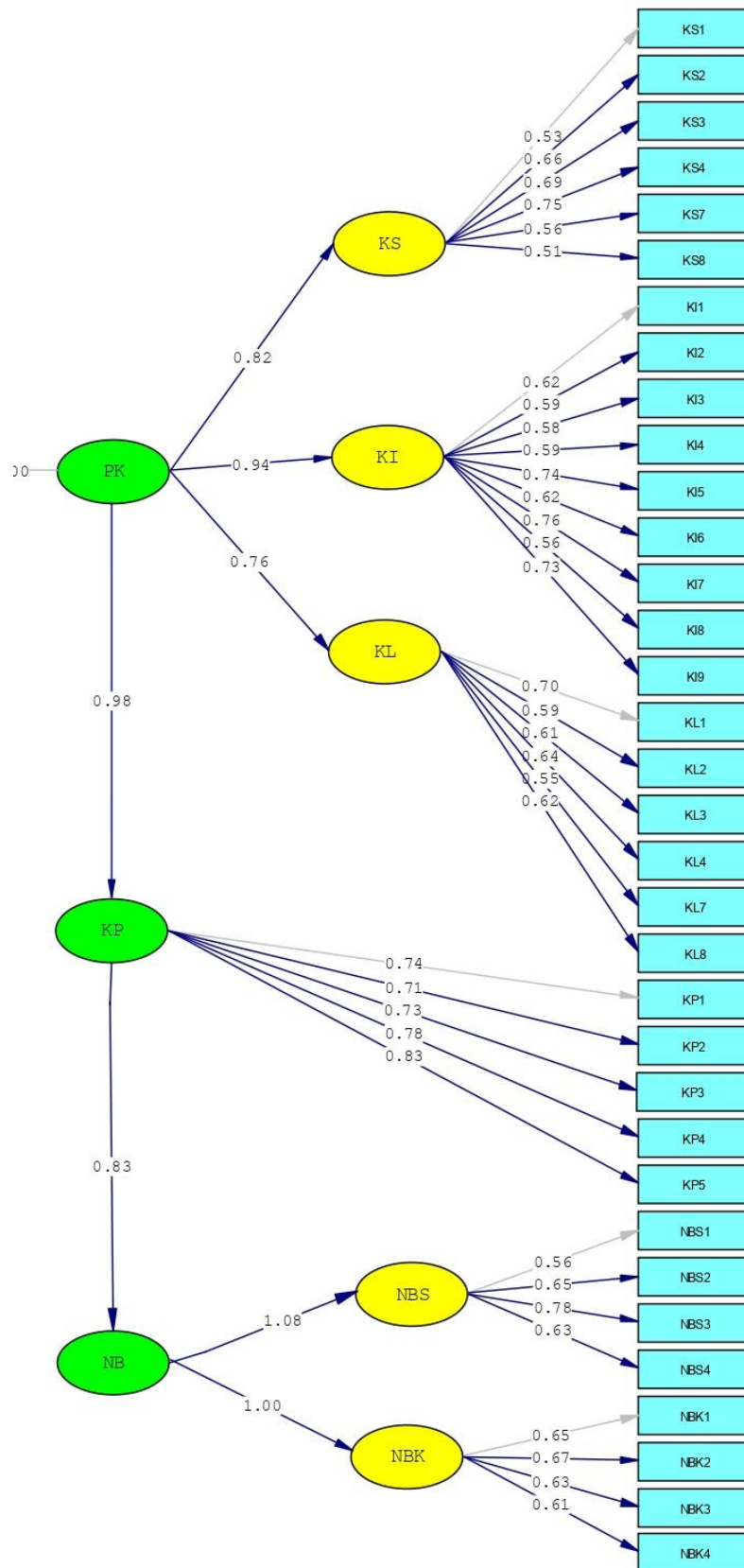


Figure 1. The results of the evaluation of the measurement model

The reliability test is carried out by looking at the Construct Reliability (CR) and Average Variance Extract (AVE) values. Acceptable values to be declared reliable are CR of $\geq 0,7$ and AVE of $\geq 0,5$. The results of the analysis of the value of construct reliability (CR) and average variance extract (AVE) are presented in Table 4.

Table 4 Values of construct reliability (CR) and average variance extract (AVE)

Latent Variables	CR	AVE
Perception of Quality	0,97	0,38
User Satisfaction	0,84	0,42
Net Benefit	0,81	0,46

Table 4 shows that all latent variables have an AVE value below 0,5, namely in the perception of quality (0,38), user satisfaction (0,42) and net benefit (0,46). However, all variables have met the reliability requirements as seen from the construct reliability value of $\geq 0,7$. According to Fornell and Larcker (1981), if the AVE is less than 0,5 it is still acceptable, provided that the composite reliability value is higher than 0,6, and the validity is qualified. Therefore, the measurement model of the results of the second match test in this study can be said to be valid and reliable so that the feasibility test results of the model measurement can be accepted.

The match test of structural equations is tested by conducting a specific degree of significance specification. The approach used to test the fit of the structural model is to determine the t-value of each latent variable must be greater than 1,96 for the hypothesis to be accepted at a significance level of 0,05 (95% confidence level). The results of the structural model match test are presented in Figure 2.



Figure 2 Structural model fit

The results of the analysis in Figure 2 show that there is a positive and significant relationship in the research variables as evidenced by the two hypotheses to have a t-value of more than 1,96. The results of the analysis showed that the perception of quality variable had a positive and significant effect on user satisfaction as evidenced by a t-value of 14,03. That is, the better the perception of quality felt by the respondent, the better it will produce satisfaction. The results of the analysis also indicate that consumer satisfaction has a positive and significant effect on net benefits as evidenced by a t-value of 11,61. This means that the higher the satisfaction felt, the higher the net benefit obtained by application users. Based on the results of such tests, it can be stated that Hypothesis 1 (H1) and Hypothesis 2 (H2) are acceptable.

Table 5 Results of decomposition of effects on models

Line	Path coefficient	t-value	R ²	Conclusion
Perception of Quality → User Satisfaction	0,94	14,03	0,89	Positive and significant
User Satisfaction → Net Benefit	1,00	11,61	0,54	Positive and significant

The results of the decomposition of effects on the model presented in Table 5 show that the value of R square in the user satisfaction variable is 0,89. That is, the user perception variable can explain the user satisfaction variable by 89 percent and the rest is explained by other variables that were not studied in the study. Meanwhile, in the net benefit variable, the value of R square is 0,54. This means that the variables of perception of quality and user satisfaction can only explain 54 percent of the net benefit variables and the rest are explained by other variables that were not studied in the study.

DISCUSSION

This study aims to analyze the level of student satisfaction with the use of the IPBMfs application. This research was conducted because student satisfaction is important for the sustainability of higher education (Darmadi, 2021). This is also supported by Haerani and Rahmatulloh (2019) who state that user satisfaction is one of the factors or measurements of success for any development of an information system in an agency. In this study, there were three variables measured, namely perception of quality, user satisfaction and net benefit.

The perception of quality describes respondents' assessment of quality in the IPBMfs application. The results of the analysis showed that respondents' perception of the quality of the IPBMfs application was in the medium category. This means that it still needs improvements and improvements to the quality of the IPBMfs application. According to Chen *et al.* (2008) perceived perception of quality plays an important role in supporting the success of the application. One of the success indicators for any application or information system development is the level of satisfaction that comes from the perception of the user perception (Devani & Rizko, 2016). Mclead (1996) explains that to measure the quality of an information system, organizations must know the level of user satisfaction as feedback for the development of such information systems.

The results of Tjiptono's research (2001) state that user satisfaction is used as a conscious evaluation regarding the performance of the product or application is relatively good or bad or suitable and incompatible with the application for the purpose of use. The results of this study show that user satisfaction with the IPBMfs application is in the medium category. One way to increase user satisfaction is to improve the quality of the application (Manus & Lumanauw, 2015). Therefore, it is still necessary to improve and develop the IPBMfs application to improve the quality of the IPBMfs application in order to increase user satisfaction.

According to Saputro, Budiyanto, and Santoso (2015), net benefit is an advantage felt by individuals and organizations after implementing an information system. However, the net benefits measured in this study are only benefits felt by individuals or users. The IPBMfs application really provides benefits for students. The results showed that the IPBMfs application makes students feel that the administrative process is more practical and can save time. The results of the descriptive analysis state that the net benefit felt by students is at a medium level. Perceived net benefits can be created by increasing the factors that shape satisfaction (Ameylida, 2020). One of the factors that shape user satisfaction in this study is the quality of the IPBMfs application.

The results obtained from the research can be used as evaluation material in making improvements so that they can develop quality (Parasuraman, 1988). Improvements and development of application quality need to be carried out to increase consumer satisfaction. Consumer (user) satisfaction is a long-term strategy that describes the performance of the company/institution and will provide benefits (Setyawan, 2019). Measurement of consumer satisfaction can also be used to consider and pay attention to consumer empowerment (Hunter & Garnefeld, 2008). The better the quality of the application, the more satisfaction will increase satisfaction and provide benefits that are more beneficial to users.

The relationship between respondent characteristics and perceptions of quality, user satisfaction and net benefits. The results of the relationship test on respondent characteristics showed that there was no relationship between respondent characteristics (gender, domicile, semester and credits) with perceptions of quality, user satisfaction and net benefits. This is in line with research conducted by Ruditya and Chalidyanto (2015) which states that gender is not related to product quality assessments because both male and female respondents give a high assessment of product quality assessments, so there is no prominent difference between the two.

In the current era of globalization, mobility and human activities are very high so that internet connections are very much needed and difficult to separate in life to help the learning process (Anhusadar, 2020). Internet connection is one of the obstacles in using learning applications (Setiadi, 2019). The results also showed that there was a relationship between respondents' characteristics (internet connection) and perceptions of quality, user satisfaction and net benefits. This is in line with the research of Aini *et al.* (2021) which states that the internet connection plays an important role in accessing the information system so that it affects the satisfaction of the information system.

The results of the influence test showed a positive and significant influence on the perception of quality on consumer satisfaction. The higher the perception of quality, the higher the satisfaction felt. These results are in line with research conducted by Widaningsih (2008), which states that perception of quality has a

positive and significant effect on satisfaction. The results of this study also support the success model of the Delone and Mclean information systems (2003) which states that the perception of quality affects user satisfaction. However, this research is different from the research conducted by Kristianto and Wahyudi (2019) which states that the perception of quality is not proven to affect consumer satisfaction.

The effect of user satisfaction on net benefits. The results showed that the user satisfaction variable had a positive and significant effect on the net benefit variable. These results are in line with the research of Widiastuti, Haryono and Said (2019), there is a user satisfaction which has a positive and significant influence on net benefits. The results of this study also support the success model of the Delone and Mclean information systems (2003) which states that user satisfaction has a positive and significant effect on net benefits. The more satisfied users, the greater the benefits will be felt. However, these results contradict Amalia's research (2019) which says that user satisfaction has no effect on net benefits.

CONCLUSIONS AND SUGGESTIONS

Respondents in this study were dominated by respondents of the female sex. The majority of respondents came from the Faculty of Human Ecology (FEMA) department of Communication Science and Community Development (SKPM). The results showed that user satisfaction was in the satisfied category, the perception of quality and net benefits of students was in the medium category. The results of the relationship test showed that there was no relationship between characteristics based on gender, domicile, semester and number of credits with perceptions of quality, user satisfaction and net benefits. In addition, the results of the relationship test also showed that there was a relationship between characteristics based on age and perceptions of quality, user satisfaction and net benefits. The results of the SEM influence test show that the perception of quality has a significant positive effect on user satisfaction and user satisfaction has a positive and significant effect on net benefits.

IpbMfs application users are expected to be able to make the best use of existing features to experience optimal net benefits. In addition, users are also expected to be able to provide suggestions and input regarding shortcomings in the application through the complaints feature that has been provided in the IPBMfs application so that improvements are made immediately. For IPB University as an application developer, it is expected to improve the quality of the application system such as handling errors and application flexibility so that it is easier to use. Improving the quality of information can be done through re-checking information to be free from errors and the usefulness of information. In the quality of service, it is necessary to improve the response to problems and provide advance notification if there will be improvements to the application. Further research can replace the population with other levels of education at IPB University. This research is also expected to be the basis for further research in analyzing student satisfaction and application user satisfaction.

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