

**The Correlation between Students Information Needs towards Universities' Website Quality (Survey on Universiti Malaya and Universitas Indonesia's website During COVID-19 in 2022)**



FINAL THESIS\*

Submitted to Fulfill the Requirements for Obtaining a Bachelor's Degree in  
Communication Studies at the Faculty of Psychology and Socio-Cultural Sciences,  
Universitas Islam Indonesia

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**UNDERGRADUATE THESIS**

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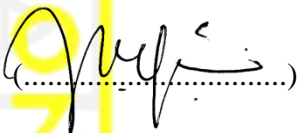
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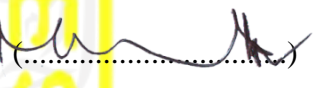
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**Statement of Academic Ethics**

***Bismillahirrahmanirahim***

Signing below, I:

Name : **Sheila Jasmine Astridita**

Student Number : **18321215**

Through this letter I stated that:

1. During the process of accomplishing this thesis research, the researcher did not perform academic frauds in any kind of form, such as plagiarism, involving others in making the thesis, or any other kind of violations which are contradicting the academic ethics highly upheld by Islamic University of Indonesia.
2. Therefore, this thesis is a pure form of my scientific work as a student and a researcher, and not involving other people/parties.
3. Should there be any occasion, after i graduate from the Communication Science Department in Faculty of Psychology and Social-Cultural Science of Islamic University of Indonesia, which states that this thesis has a strong evidence of being a plagiarated work or conducting academic frauds, i will be responsible for all the consequences and academic sanctions that has been set by Islamic University of Indonesia.

Hence this statement is truly sincere

Yogyakarta, 28 June 2022

Stating,



Sheila Jasmine Astridita

**MOTTO**

***“And be patient, for indeed, Allah does not allow to be lost the reward of those who do good”***

*-Hud 11:115*

**“Work Hard in Silence and Let Success be Your Noise”**

*-Frank Ocean*

**Dedication**

I dedicate this work to :

**Sheila Jasmine Astridita**

الجامعة الإسلامية  
الاستدرا الأندونيسية

## FOREWORD

### *Assalamu'alaikum Wr.Wb*

Alhamdulillahirabbil'alamin, all praise is due to Allah SWT for His unlimited grace and blessings. Shalawat and salam is always poured out to our great prophet Muhammad SAW, and all his family, friends, and relatives who always strive in the way of Allah SWT to uphold Islam and its values until the end of time, so that the writer could accomplish this undergraduate thesis entitled "The Correlation between Universities' Website Quality towards Students Information Needs".

It was never an easy process for the writer to accomplish this research. As a matter of fact, in accomplishing this undergraduate thesis, the writer admits that this work would not be finished without a support system from the beginning of the process until the end. Support systems that encourage the writer are several parties involved and help the writer in terms of prayers, cheers, support, guidance, motivation and advice that are essential for the writer to generate new ideas and make it possible to accomplish the work. Therefore, the writer want to thank all the parties involved, which are mentioned below:

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Yogyakarta, 28 June 2022

Stating,



Sheila Jasmine Astridita

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## ABSTRACT

The Large-Scale Restriction regulation impacts students' learning process by requiring them to study from home. The university uses the website as a medium for distributing information to communicate with its students. This research is intended to determine whether the website is effective as a medium of information during COVID-19 by looking for the relationship between information needs and website quality. Researchers use Uses & Gratification theory to assess student needs and WebQual to assess website quality. With the Pearson product-moment analysis method, researchers took data using a survey method from students from Universiti Malaya and Universitas Indonesia. The study results were taken from the analysis of the relationship between website quality variables (usability, information and interaction quality) and student information needs variables (cognitive needs, personal integrative needs, and social integrative needs). The research shows a relationship between the two variables on the Universiti Malaya and the Universitas Indonesia websites. The strong relationship between student information needs and website quality makes the Universitas Indonesia's website an effective information medium during this pandemic. Meanwhile, the existence of a weak relationship between personal needs and the quality of interaction makes the Universiti Malaya website quite effective as a medium of information.

**Keywords : Uses & Gratification Theory, Website Quality, Information Needs, Universiti Malaya, Universitas Indonesia**



# CHAPTER 1 BACKGROUND

## A. Research Background

Websites are information-based communication tools that embody technological advances in the field of information. Becti (as cited in Hia et al. 2020) asserted that a website is a compilation of information pages that form a series of mutually exclusive structures linked by a network of pages. Websites have become a fundamental tool in the digital era to help people search or disseminate information. Websites can be used as personal, commercial, government, or educational for-profit and non-profit, published in general. The website's usability has been widely used in institutions, which aims to facilitate disseminating information about education to students. School websites can convey information about lectures or services and build relationships with the students or the public related to universities. Besides, the websites' advantage is that they can be accessed freely and widely by the public.

Ifadah and Rochmaniah research students' opinions on the Muhammadiyah University of Sidoarjo website as an information media. From this previous research, they used *Webqual 4.0* method for assessing the website quality. The results showed that in terms of usability, information, and interaction quality. The overall impression of the University of Muhammadiyah Sidoarjo website as a medium of information is not good. The overall impression of the user on the UMSIDA website is not good. Thus, the website needs to have improvements in all aspects (appearance, features, information). From previous studies that have been conducted, the university's website still needs to develop the effectiveness and efficiency of information delivery to students or the wider community. The university can improve its web by adding new features that refer to information needs such as learning materials, online library, student registration, etc.

In the present condition, the COVID-19 pandemic has spread worldwide, and it changed the way people lifestyle by forcing people to adopt a new lifestyle. New normal requires everyone to limit their activities carried out outside. In order to reduce the spread of COVID-19, the government implemented Large-Scale Social Restrictions. This regulation has an impact on the postponement of teaching and learning activities. Websites have two main functions in conveying information during COVID-19 era. First, the website can be

used as a management control to find out academic activities in the university. Second, it can provide interactive services to users (students and parents) or stakeholders to access various kinds of information such as academic schedules and academic guides (Sutanto, 2015). Moreover, the website can deliver information about lectures, services, library, or even COVID-19 mitigation to the students. Students can easily access everything related to academic activities through the university website, which can decrease the chance of spreading the COVID-19 disease during the isolation period. According to Yumarlin (2016), a website can provide a significant advantage because it can be accessed globally via the internet network. Information is available online and can answer questions from users rapidly and inexpensively. Most websites provide several articles with tips and information. When a website frequently updates and posts articles, the public can also use it as an information source of COVID-19 outbreak.

From the benefits of university websites that provide much-needed information, still, only users can assess if the website is useful or not. Users will feel satisfied if they see the completeness of the information, accuracy, suitable format, ease, and speed of a website. Especially in this COVID-19 era, universities must be more interactive in providing information about academic activities and the development of the virus around schools to students and parents. University website usefulness can offer productive and convenient ways to achieve learning goals for the students during lockdown.

Since in Indonesia, no one has researched the correlation between university websites with the fulfillment of student information needs during the pandemic era since face-to-face learning has been removed. Still, the minimum amount of research on student satisfaction with Indonesian university's websites quality. Moreover, as an international program student who needs to know the diversity of information on foreign university websites, this research is conducted in Indonesia and Malaysia. Universities in Malaysia dominate the top 10 of the best universities in Southeast Asia conducted by Webometrics in 2021. All of them are Universiti Malaya, Universiti Teknologi Malaysia, Universiti Sains Malaysia and Universiti Putra Malaysia (Picture 1.1). Therefore, Universiti Malaysia's website becomes one of the study objects in this research as a representation of the best universities in Southeast Asia. University ranking assessment by Webometrics is carried out with indicators; visibility, transparency, openness, and excellence.

Home » [Ranking by Areas](#) » [Asia/Pacifico](#) » South East Asia

Current edition **South East Asia**

Universities: January 2021  
Edition 2021.1.2 beta

ranking	World Rank	University	Det.	Country	Impact Rank*	Openness Rank*	Excellence Rank*
1	242	<a href="#">National University of Singapore</a>	SR		101	5963	29
2	316	<a href="#">University of Malaya</a>	SR		1022	331	206
3	364	<a href="#">Nanyang Technological University</a>	SR		278	5963	45
4	474	<a href="#">Universiti Teknologi Malaysia</a>	SR		1343	324	379
5	476	<a href="#">Chulalongkorn University</a>	SR		704	503	581
6	509	<a href="#">Universiti Putra Malaysia</a>	SR		1112	260	524
7	520	<a href="#">Universiti Sains Malaysia</a>	SR		998	322	578
8	531	<a href="#">Mahidol University</a>	SR		769	662	634
9	657	<a href="#">Universitas Indonesia</a>	SR		396	636	1253
10	700	<a href="#">Chiang Mai University</a>	SR		681	1063	970

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**Picture 1.1**  
**Webometrics Ranking**

(Source: [https://www.webometrics.info/en/Asia\\_Pacifico/South%20East%20Asia](https://www.webometrics.info/en/Asia_Pacifico/South%20East%20Asia))

Focused on exploring student opinions towards their information needs (lectures, university services, library, and COVID-19 mitigation) and the quality of university websites they used to gain information. The researcher will use Uses & Gratification Theory as the basis of this research proposed by Herbert Blumer and Elihu Katz. Melyco et al. (2020) state that theory has an assumption that the audience is not a passive consumer of the media. Instead, the audience has power over their media consumption and assumes an active role in interpreting and integrating media into their own lives. Thus, each media needs to compete with other sources to satisfy the audience's needs. Quality is an important component in the competition. This research will use the WEBQUAL method for assessing the quality of university websites as information media based on students' perception with 3 indicators: usability quality, information quality, and interaction quality. Considering this method aims to determine whether the website quality has met users' needs by answering the questions, *do users feel that their needs are being met when using the website? Does the information match the user's needs? Do users feel safe accessing the website?* While using Uses & Gratification Theory dimensions for assessing students' information needs in using the university's website. Hence the researcher intends to examine correlation between universities' website quality towards students' information needed during COVID-19.

## **B. Problem Formulation**

How is the correlation between the quality of the university website and the fulfillment of student information needs during COVID-19 based on usability, information, and interaction quality?

### **C. Research Purpose**

This research aims to find the correlation between university website's quality as information media towards student information needs during COVID-19 based on usability, information, and interaction quality.

### **D. Research Benefits**

1. On educational benefits, this research is expected to be used as a literature reference and develop insight into communication studies, especially regarding university websites as information media.
2. On practical benefits, this research is expected to provide information for Universiti Malaya, Universitas Indonesia and other universities about the university's website's usefulness for students in searching for information about lecturing the COVID-19 pandemic. In addition, it can become an evaluation and consideration for university website developers concerning the quality and completeness of information on the website.

### **E. Literature Review**

#### **1. Previous Research**

Melyco, Wahyudin & Mulyana in 2020 conducted research about the correlation between social media quality and information needs, entitled "*Hubungan Antara Kualitas Instagram dengan Pemenuhan Kebutuhan Informasi Followers @genbibandung*". From this previous research, they used *Webqual 4.0* method to assess the information quality of genbibandung's Instagram. The researchers used Uses & Gratification Theory as the basis of their research. This quantitative research used a correlational approach to determine the relationship between the information quality variables on GenBI CFDan activities on the genbibandung's Instagram account with the fulfillment of followers' information needs. Results showed a significant correlation with a strong level of closeness in some parts and weak in some other parts between quality and meeting the information needs of active followers of genbibandung. Conclude that Instagram information quality is good enough to fulfill the central banking information needs of genbibandung followers.

Ifadah & Rohmaniah in 2014 conducted research entitled “*Opini Mahasiswa Terhadap Website Universitas Muhammadiyah Sidoarjo Sebagai Media Informasi*”. The research finds out the opinion of students regarding the quality of the Universitas Muhammadiyah Sidoarjo website as information media. This research intends to explain the student’s experience in using websites for school activities. The researchers used quantitative descriptive and collected data from the results of semi-structured interviews and questionnaires with 97 students, which is divided proportionally based on the population of each department. The researcher analyzed the data using descriptive statistics and perceived value as a guide in interpreting data related to the quality of the website. The researchers focused on the website quality as information media by using the WebQual method by Barnes and Vidgen. WebQual theory is based on three indicators; Usability, Web information, and Interaction quality. This research shows that the ease of learning to operate the Umsida website is 69%. Website and user interaction is only 57% because the Umsida website is like a static website that can only be read, only contains comments from ordinary website visitors, and the operators do not interact. In conclusion, there are no two-way interactions between students and the university. The website's appearance is 49% because users think that the website's color is too bright, does not vary, and there are no additional animations and visualizations that can make the website look attractive. Users also said the Umsida website looks more like an advertising website, not an educational institution's website. The indicator that the website can provide a positive experience to users is 63%, users think that there is no information that can be retrieved or useful with what students need, such as downloading journals, handouts, and teaching materials. Then, the website's timeliness level, the website manager has never updated information on time, and the content of the website itself has never been updated. In addition, the level of information readiness is 60%; as an institutional website, it should provide information regarding campus facilities or lectures information. The level of accuracy of detailed information is 55%, the information available only as a general viewpoint, there is no corroborating information, for example, a picture of the information provided. The reputation level of the Umsida website is 62%, where most students said that the website is not attractive. The level of providing personals. There is no private space facility so it cannot measure the security of personal information on the website. The researcher suggests website managers be more professional, creative, and keep updated in managing the Umsida website. For students, they can visit the Umsida website more often to provide suggestions and input to website Management



students should invite their colleagues to join the website of the Muhammadiyah University Sidoarjo.

Researcher from Universitas Negeri Yogyakarta, Wahidin Abbas made research under the title *“Analisa Kepuasan Mahasiswa Terhadap Website Universitas Negeri Yogyakarta”*. This research determines student satisfaction with the university’s website. The research approach method is quantitative, and the data collection technique used a questionnaire, then validity and reliability were tested. This research data analysis technique used is descriptive analysis with a percentage. The research population consists of each study program taken by proportional random sampling in Universitas Negeri Yogyakarta. The research results use the Chi-Square and WEBQUAL ([www.webqual.co.uk](http://www.webqual.co.uk)) method for the measurement. The results showed that the students are satisfied with the dimensions of usability, information quality, and service interaction on the website of Universitas Negeri Yogyakarta.

Joshua Tarigan in 2008, conducted research entitled *“User Satisfaction Using Webqual Instrument: A Research on Stock Exchange of Thailand”*. This research aims to assess user satisfaction using the dimensions of WEBQUAL instruments by collecting 341 questionnaires from e-library users. Research results found that 54% of end-users satisfaction can be explained by the *Webqual 4.0* dimension, while 46% of end-user satisfaction cannot be explained. Therefore, there must be other variables that have an influence. Also, the limitation arises from the component of website quality. The researcher cannot identify End-user satisfaction.

Another study by Setyanto in 2017 about user’s perception on the quality of library websites using Waller Usability entitled *“Persepsi Pengguna Terhadap Kualitas Website Perpustakaan Umum Kota Yogyakarta Menggunakan Waller Usability”*. This study aims to describe the quality of the Yogyakarta City Public Library website, based on user perception in using Waller Usability. This study uses a descriptive quantitative approach by taking purposive sampling. The respondents have a requirement that they should have access at least twice. One hundred data from respondents will be analyzed with seven Waller Usability dimensions, concluding that the reason users access the library’s website is to find references and collections. This research shows the website has an attractive appearance, seen in terms of image design, and it has a graphic display that is quite artistic. Also, the website is easy to find information and navigation. In terms of content on the website, there is factual and



various information, while in terms of language use, the website already uses standard Indonesian. On the other hand, the Yogyakarta City Public Library website has a problem in updating information. The placement of important information on the website is still hidden.

The differences between this research and previous research above is, it was conducted during the pandemic era, in which learning activities were held remotely and university's website became frequently used during this time to deliver the information to the students. Moreover, this research has two objects from different website universities located in different countries which makes many perspectives that can be obtained from the student's point of view in other countries regarding the use of university's websites.

## **2. Theoretical Framework**

### **a. Uses and Gratification Theory**

Kriyantono (as cited in Nugroho & Purnomo, 2013) the core of the uses and gratification theory is that the audiences use mass media based on certain motives. Media is considered trying to fill audience motives. If this motive is met, then the audience's needs will be met. The media can fulfill the audience's needs and be referred to as effective media.

The Uses and Gratifications approach provides an alternative to look at the relationship between media content and audiences and categorize media content according to its function. Katz illustrates the logic that underlies the Uses and Gratifications approach is a person's psychological condition will cause a need that creates expectations to the media or other sources, leads to different media patterns (or involvement in other activities) that will ultimately result in need fulfillment and other consequences, including unexpected (Iswahyuni, et al., 2017).

Newhagen & Rafaeli stated that uses & Gratification theory have a major role in answering initial Web-use questions of prurience, curiosity, profit seeking, and sociability. This theory also holds the prospect for understanding the Internet's mutability, or its broad range of communication opportunities, by "laying out a taxonomy of just what goes on in cyberspace" (Ruggiero, 2013)

According to Marston (as cited in Wu & Reychav, 2012), there are five categories of users' gratification that need to be fulfilled by the media.

- 1) Cognitive needs reflect an individual's need to structure relevant situations in meaningful and integrated ways. Such as, people use media sources to find out about news and stay updated with current issues.
- 2) Affective needs involve people's emotions, such as pleasure, towards consuming media that guides us in associating genuinely with content and assists us with framing an enthusiastic reaction from the media.
- 3) Personal integrative needs related to consuming media aid people in creating their credibility, stability, and status.
- 4) Social integrative needs are the need of people to be socially connected with others that force them to use media.
- 5) Tension-free needs refer to people who use media to escape reality and relieve tension into new experiences that help them feel recharged.

However, in this study, the researcher limits the scope of the analysis to three dimensions: cognitive, personal integrative, and social integrative. This study excludes affective and tension-free needs dimensions because the websites are presented as educational websites that have a formal image, not for entertainment.

Katz, Blumler and Gurevitch pointed out five basic assumptions of Uses and Gratification Theory (Kunczik, Zipfel, 2006: 190) in which:

- 1) The audience is active and its media use is goal oriented.
- 2) The initiative in linking need gratification to a specific medium choice rests with the audience member.
- 3) The media compete with other resources for need satisfaction.
- 4) People have enough self-awareness of their media use, interests, and motives to be able to provide researchers with an accurate picture of that use;
- 5) Value judgments of media content can only be assessed by the audience.

By pointing out the last point, this theory also will be assessed with WebQual dimensions (usability, information, and interaction) to measure the correlation between the quality of the university website and the information needs of students. In using this theory, the researcher hopes to find out whether the university website is qualified as an effective medium which is determined by meeting the information needs of students.

## **b. Website as Information Media**

Arief (as cited in Wibisono & Susanto, 2015, p. 65) argues that an application contains multimedia documents (text, images, sound, animation, video) that use the HTTP protocol (hypertext transfer protocol) and access it using a browser called a website.

Websites have a few important characteristics. First, the content of information means the website's purpose should be relevant to information to be easy to understand, valuable, and current. Second, the website's layout shows how the information is formed according to the general layout and the effectiveness of hyperlinks. Third, ease of use means the website can facilitate the effective performance of its tasks. Fourth, technical characteristics include security for user authentication and secure transactions, while accessibility depends on the technical reliability of the underlying infrastructure platform (Tarafdar & Zhang, 2008, p. 16-17).

Hasugian in 2018 stated that the website has its function as information media, promotional media, marketing media, educational media, and communication media. Information media, in general, is a tool for collecting and rearranging information that becomes useful material for information recipients. Through the media of information, the public can find out the current information and interact with one another. Meanwhile, a data collection process into a more useful and meaningful form for those who receive it is the meaning of information. After some information, a system will not run smoothly and can eventually die, same as an organization without any information, the organization cannot run and cannot operate (Jogiyanto HM, 2005 in Sasmita, 2015).

Website as information media described by Hernia (as cited in Syaban, et al., 2018) is a page containing information and can be seen if the computer connects to the internet. The website allows everyone to get and manage information from various available sources on the internet. The website's appearance usually consists of many types of data that can require the information to be conveyed.

A basic assumption of why a website is considered an effective publication media is because the website seems to eliminate the boundaries of time and space in one-way or two-way communication between individuals and groups in all corners of the world (Ni'mah, 2015).

As the researcher has mentioned, websites also function as educational media. According to Arif Fadillah (2013), educational websites are increasingly

needed along with technological advancement, which is easily accessed by all circles of society. Many benefits of educational websites can be taken. The educational website aims to:

- 1) Support the program of the Minister of Education in optimizing the internet in the educational sector
- 2) Improving the quality of school administrators, teachers, students, and other school apparatus.
- 3) Reduce the negative effects of using the internet by increasing the number of educational modules.
- 4) Socializing the internet

Hence, the educational website allows for the process of e-learning. The website's appearance can be more interactive, so information such as learning materials can also be presented directly. Although there is no direct communication, discussion forums can be conducted online and at that time. This learning system has no access restrictions, and this is what allows learning to be done more time.

### **c. WebQual**

Considering the research assesses the university's website quality as a medium of information to fulfill the information needs of students. According to Tarigan (2008), Richard Vidgen has developed a method to measure the quality of an organization's websites using users' perception, namely Webqual. Sanjaya in 2012 stated a good information system according to users' perceptions, is a system where users feel satisfied with the website. Previous research suggests that the WebQual dimension can predict user satisfaction and user intent in reusing the website. The dimensions that exist in WebQual are only one method in measuring the quality of a website. Barnes & Vidgen identified three dimensions of website quality namely usability, information quality, and service interaction quality. First, usability is the quality related to the design such as appearance, accessibility, navigation, and the picture passed on to the user. Second, information quality is related to the content, the reasonableness of the data for the user's purposes like exactness, format, and significance. Third, service interaction quality is related to the service interaction experienced by users as they dive further into the site, exemplified by trust and compassion, for instance, transaction issues and data security, item conveyance, personalization, and correspondence with the site proprietor (Barnes &

Vidgen, 2002). Thus, there are WebQual indicators that are structured based on three dimensions of quality as contained in Table 1 to Table 3

**Tabel 1.1**  
**Usability Quality**

No.	Indicator	Description
1.	Find it easy to learn the operation of the website	Usability is based on the user experience in using a website that users easily operate. The level of usability can be achieved if the site suit the following five requirements: (1) Easy to learn, by placing the most important content at the top of the page so that visitors can find it quickly; (2) Efficient in use, by providing links as necessary so that visitors can reach the required information quickly and easily; (3) Easy to remember, by not making many striking changes to the site, especially in navigation; (4) Low error rate, by avoiding links that do not work (broken links) or the page is still under construction; (5) User satisfaction. The level of usability must be considered because it relates to the continuity of the website. Users should be able to find what they are searching for, download it quickly, know when they are done, and be able to easily tell other users the website or content they have found as the promotion for the site (Suyanto as cited in Laugi, 2018)
2.	There is a clear and easy interaction between the website and the user	According to Nielsen (2000), usability focuses on whether users can find ways to use the website effectively. It can also be stated that usability is a user experience while interacting with a website, the user feels that they can operate it easily and quickly.
3.	Users find it easy to navigate the website	The most successful websites are those websites where the content and navigation were inextricably linked (Spool, et. al. 1999 as cited in Setyanto, 2017). Ease of navigation is one of the criteria that must be met in designing a website. Navigation in a site is a medium to move from one page to another (Setyanto, 2017)
4.	Users find it easy to use the websites	According to David 1989, as cited in Setyanto, perceived ease of use can be defined by website users that have experience in using it and believe the use is easy and does not require great effort.

5.	The website has an attractive appearance	Websites are considered to have higher attractiveness if they have icons, colors, images, and animations as graphical representations. By this, websites can improve the user's satisfaction with the attractiveness of website appearance (Zhang et. al, 2000).
6.	Design according to the type of website	Educational websites must be designed based on scientific standards. In which the website should contain a set of applications for studies such as language and linguistic skills, evaluation, feedback, exercises, design, objectives, activities, and other educational tools. (Al-jahwari & Abusham, 2019)
7.	The website contains competencies	Computer users are looking for a system that satisfies their personal needs, rather than a machine. The creators or development in information system departments must provide a set of applications to help and support the users. In addition, it will give impact on the relationship between information systems and their users (Pitt et al., 1995)
8.	Users have a positive experience while using the website	Website quality has a direct impact on user satisfaction because online user behavior can be influenced by virtual experiences. One of the perceived virtual experiences is being able to get good service, which is as good as offline service. If this continues to be improved, it will increase user loyalty, and this is in line with the statement that when consumers feel the experience of using the website is better in the next transaction (Supangat, 2016)

**Tabel 1.2**

**Information Quality**

No.	Indicator	Description
1.	Provides accurate information	The dimension of accurate information shows that the information provided is correct information, presenting facts that are honest, free from errors, and not misleading. Accurate information is very important in presenting information because errors in providing data and facts can cause a loss of trust in the source of information, especially if the source of the information is a government organization (Damanik & Purwaningsih, 2017)
2.	Provides believable information	Organization websites must be believable information by providing good information quality. It is important since it can increase public trust in the organization (Damanik & Purwaningsih, 2017)

3.	Provides timely information	When a website has available and updated information, it can be categorized as timely information (Bailey & Pearson, 1983)
4.	Provides relevant information	The relevance of desired information with the information that has been delivered by the website (Bailey & Pearson, 1983)
5.	The websites provide easy to understand information	Sutabri (2005) as cited in Setyanto (2017) stated that information can be said to be easy to understand if it is presented clearly. Clear information will increase the perfection of the value of information. Determining the clarity of information can be determined from the format of the information. Therefore, to prove it is necessary to do a cross table between the presentation of information content and the structure of writing.
6.	The website presents detailed information	The internal school website needs to convey complete, detailed, and clear information. So that interaction and socialization with students or the wider community way more effective (Akbar & Tjendrowaseno, 2013)
7.	The website presents information in an appropriate format	Delivering information in a good format to users is important for determining information quality. A website can be considered high quality when users admit the website format is easy to follow and understand. (Kim & Niehm, 2009)

**Tabel 1.3**  
**Interaction Quality**

No.	Indicator	Description
1.	The website has a good reputation	According to Van Riel & Fombrun, reputation is a variety of behaviors and performances communicated by the organization to multi-stakeholders over a long period. A good reputation from an online forum or website is also a factor that encourages someone to have more confidence in transactions. In this case, a good online reputation refers to the security of personal data, one of which is personal passwords (Sugiono, 2020).
2.	The user feels secure about his personal information	When people cannot control their information access, they are concerned about privacy because of their personal information (Hoffman, et. al. 2006).
3.	Creates a sense of personalization and community	Raharjo, et.al in 2014 stated that personalization and community sense are formed when the website is related to local information and constituents. Personalization



		happens when the application can follow what a user does and match the user's behavior by providing information related to what the user has previously done on the website.
4.	Website makes students easy to communicate with the institution	In usability matters, the university website must be able to become media for communicating with stakeholders from various organizations or communities. Considering the usability of websites themselves, are important components of an organization's survival in the globalized competition. (Mentes and Turan, 2012)

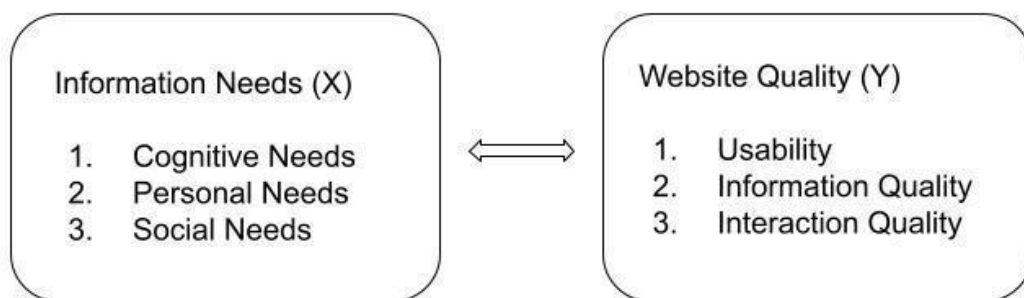
### F. Hypothesis

To find out how the relationship between the quality of university websites and the fulfillment of student information needs during COVID-19, the researchers conducted a correlation analysis with the formulation of the hypothesis:

H0: There is no correlation between students information needs and the university website quality

H1: There is a correlation between students information needs and the university website quality

### G. Conceptual Framework



**Picture 1.2**  
**Research Framework**

Based on the framework, data analysis will be carried out to determine the correlation of the two variables which are divided into six sub-variables: Cognitive Needs (X1), Personal Integrative Needs (X2), Social Integrative Needs (X3), Usability Quality (Y1), Information Quality (Y2), Interaction Quality (Y3). This study uses the Uses & Gratification



needs concept which is categorized into three dimensions (*cognitive, personal integration, social integration*) and WebQual for assessing the quality of the website.

## **1. Independent Variables**

In this research Uses and Gratification have a role as independent variables because

Regarding this research using the three dimensions of Uses & Gratification Theory for information needs assessment by Katz, Gurevitch, and Haas (as cited in Iswahyuni, et. al, 2017) :

### **a. Cognitive needs**

Needs that are related to the user's need to straighten or add information, knowledge, and understanding of one's environment. This need is based on a person's desire to understand and control his environment. The fact is that people, according to cognitive psychology, tend to understand and control their environment. In addition, this need can also give satisfaction to one's curiosity and inquiry.

### **b. Personal Integrative needs**

This need is linked with reinforcement of credibility, trust, stability, and individual status.

### **c. Social integrative needs**

This need is related to strengthening relationships with family, friends, and other people in the world. This need is based on someone's desire to join or group with other people

## **2. Dependent Variables**

This research used three dimensions of WebQual theory for assessing the quality of university websites based on student's perceptions according to Nada & Wibowo in 2015 :

### **a. Usability Quality**

Usability is related to the website design, such as display, ease of use, and navigation that will be presented to the user. Usability quality includes ease of learning and operation, ease of understanding, ease of browsing, ease of use in browsing the website, displaying appropriate visual forms, and having good competence in providing enjoyable new experiences. In this case, usability quality

can affect student satisfaction in using the university website as a medium of information.

**b. Information Quality**

This quality is related to the content contained on the website, and whether the information is suitable for user purposes such as accuracy, format, and relevance. It includes things such as information accuracy, reliable information, timely information, information that is in accordance with the discussion, easy to understand, complete, and presented in an appropriate format.

**c. Interaction Quality**

This quality is related to user experience regarding communication services. It should provide a sense of security and trust during transactions; the website has a good reputation and can facilitate users to communicate with others. Also, being able to provide confidence that the promises made will be kept.

**H. Operational Framework**

The researcher will spread questionnaires using purposive sampling which means the objects are students who have experience in using university websites. There will be 200 students in total from the Universiti Malaya and the Universitas Indonesia. The questionnaire will be divided into six measurements: usability quality, information quality, interaction quality, cognitive needs, personal integrative needs, social integrative needs. By using the five-point Likert scale to measure the question. Students will be asked to rate the university website for each indicator from 1 (strongly disagree) to 5 (strongly agree).

**Tabel 1.4**  
**Operational Framework**

Variable	Measurement	Measurement Scale
Students Information Needs	a. Information on the university’s website able to meet their cognitive needs (X1) b. Information on the university’s website able to meet their needs of personal integrative (X2) c. Information on the university’s website able to meet their needs of social integrative (X3)	Likert

<p>University Website Quality</p>	<p>Usability Quality (Y1)</p> <ul style="list-style-type: none"> <li>a. Students find it easy to operate the website</li> <li>b. The interaction between the website and the students is clear and easy-to-understand</li> <li>c. Students find it easy to navigate the website</li> <li>d. Students find the website easy to use</li> <li>e. Students find the website has an attractive appearance</li> <li>f. Students find the design relevant to the type of website</li> <li>g. Students find the website contains competencies</li> <li>h. Students find the website creates a positive experience</li> </ul> <p>Information Quality (Y2)</p> <ul style="list-style-type: none"> <li>a. University's website provides accurate information</li> <li>b. University's website provides believable information</li> <li>c. University's website presents timely information</li> <li>d. University's website presents relevant information</li> <li>e. University's website presents easy-to-understand information</li> <li>f. University's website presents detailed information</li> <li>g. University's website presents information in an appropriate format</li> </ul> <p>Interaction Quality (Y3)</p> <ul style="list-style-type: none"> <li>a. The university's website has a good reputation</li> <li>b. The user feels secure about his information</li> <li>c. Creates a sense of personalization and community</li> <li>d. The university's website makes it easy to communicate with the organization</li> </ul>	<p>Likert</p>
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## **I. Research Methodology**

### **1. Types of Research**

#### **a. Research Paradigm**

In this research, the researcher uses a positivist paradigm that can describe respondents' opinions utilizing the website to assess the quality. Positivism considers social reality as something empirical and can be observed in real terms. When conducting research, the researcher, and the object to be studied are dependent and do not take action in interacting freely. The positivistic paradigm in social phenomena is implied from external perspectives based on the understanding of the theory that has been constructed. Moreover, social reality is determined by other social phenomena between the variable relationships and the social reality, which can be described in symbols that have been built in society.

#### **b. Types of Research**

This research uses a quantitative method and a correlational approach. The use of the correlational method aims to determine the correlation between a university's website information quality and students' information needs variables. Focused on the exposure of relationships between variables, which investigate it based on observations of the effects, aim to separate the direct and indirect effects of both variables.

##### **1) Population, Sample, and Sampling Technique**

The population in this study were students from Universiti Malaya and Universitas Indonesia. In this research, purposive sampling will be used because the researcher has targeted respondents which students who have been using their own university's website. The sample in this research is 100 students from Universiti Malaya and 100 from University of Indonesia, which was calculated based on slovin's formula  $n = \frac{N}{1+Ne^2}$ .

##### **2) Research Method**

The form of data will be statistical descriptive quantitative. This research conducts surveys and observations on the study object which the universities website as a research method. The data obtained from the survey result consists of respondent data and the observations on university's website was conducted by the researcher. Gunawan in 2017 stated descriptive statistical analysis is used

for analyzing data by describing without the intention of making conclusions that apply to the public.

## 2. Data Collection Technique

Research data are collected from questionnaires. Respondent sincerity in answering the questions is very important because the validity of a social research result depends on the measuring instrument. To overcome this, the questionnaire will be tested with validity, reliability, and correlational tests carried out with the application of the SEM program.

Pearson Product Moment test will be used in this research to conduct the correlation test. According to Ridwan & Akdon (as cited in Fadli, 2014) it is used to determine the correlation scale between the independent variable and the dependent variable. This correlation analysis technique includes parametric statistical techniques that use interval and ratio data with the following requirements: data is normally distributed, the data are connected in a linear pattern, and the linked data have the same pair according to the same subject. The correlation level value in this test can be seen below.

**Tabel 1.5**

**Correlation Level Value**

Coefficient Interval	Correlation Level
0,80-1,000	Very Strong
0,60-0,799	Strong
0,40-0,599	Strong Enough
0,20-0,399	Poor
0,00-0,199	Very Poor

## J. Research Limitations

There are several limitations that may affect the results of this research. These limitations are as follows:

1. In observing the websites of the two universities, researchers experienced difficulties due to limitations in accessing information. This is because some website page links

require logging in with their own student accounts while the researchers are not from the two universities.

2. Researcher have been observing the website since September but the easing of COVID-19 cases in Indonesia allows for differences between the results of observations and the results of the questionnaire collected in February.
3. Researcher have difficulty in collecting questionnaire data and processing data because of the large number of respondents who are spread across two universities and different countries.

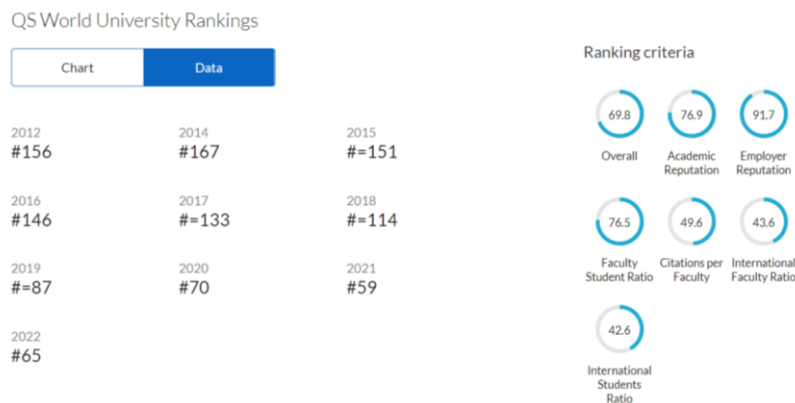


## CHAPTER 2 GENERAL DESCRIPTION OF RESEARCH OBJECT

This chapter discusses profiles of Universiti Malaya and the University of Indonesia which were chosen by the researcher to become research objects related to student satisfaction in gathering information about lectures and COVID-19 during online learning through the university's website.

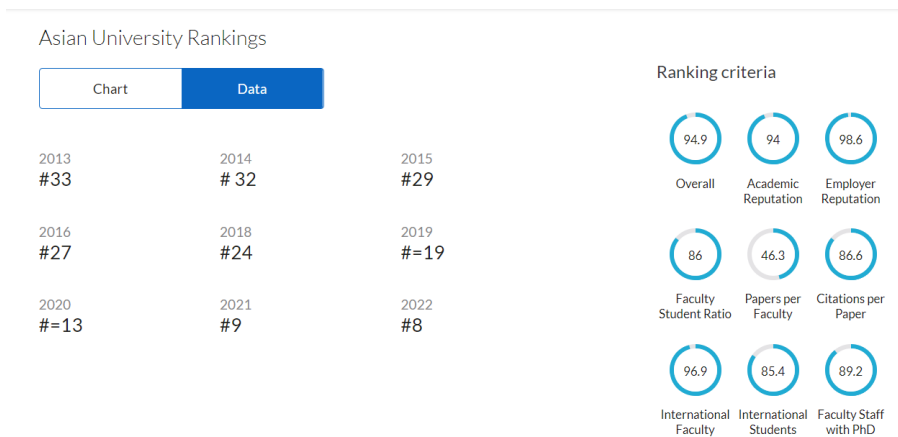
### A. Universiti Malaya

Universiti Malaya was established in 1905 in Singapore at the time named King Edward VII College of Medicine. Only then, did its name change to the Universiti Malaya in 1949. University's growth was very rapid during the first decade of its establishment and this resulted in the setting up of two autonomous Divisions on 15 January 1959, one located in Singapore and the other in Kuala Lumpur. Until both governments of the two territories indicated their desire to change the status of the University into a national university. The legislation was passed in 1961 and the Universiti Malaya was established on 1st January 1962 in Kuala Lumpur. Universiti Malaya holds to the values of integrity, respect, academic freedom, open-mindedness, accountability, professionalism, meritocracy, teamwork, creativity, and social responsibility. In line with their vision to become a global university impacting the world, they have proven themselves by becoming a renowned institution of higher learning at the international level in research, innovation, publishing, and teaching. According to QS Top Universities, Universiti Malaya (UM) is one of the top public universities in Kuala Lumpur, Malaysia. It is ranked #59 in QS Global World Rankings 2021 and ranked #9 in QS Asia University Rankings 2021.



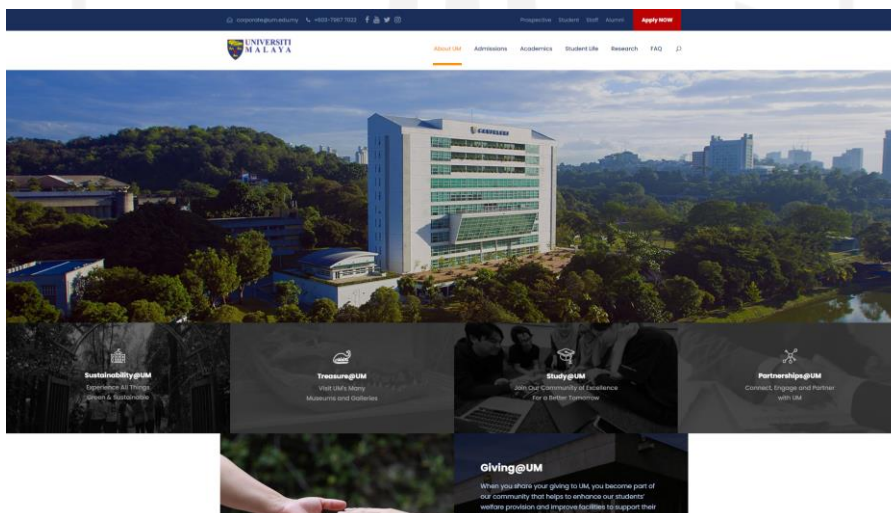
**Picture 2.1**

## University Malaya on QS World Rankings



**Picture 2.2**  
**Universiti Malaya on QS Asia Rankings**

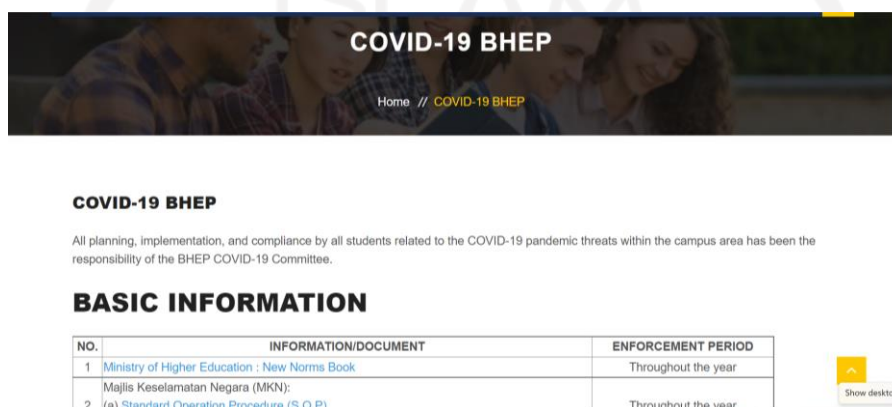
Universiti Malaya uses effective methods including contemporary technology to manage information, to achieve diverse professional goals aligned with professional standards, and make decisions based on appropriate data and information. In 2013, Universiti Malaya created a website <https://www.um.edu.my/>, then now ranked #2 in Southeast Asia in 2021 according to Webometrics. On the homepage, there are several features such as About UM, Admissions, Academics, Student Life, Research, FAQ, University Video Tour, and other hyperlinks.



**Picture 2.3**  
**Universiti Malaya's Website Homepage**



During the pandemic, the website provides information related to COVID-19 such as COVID-19 Guidelines, Procedures for International Students Going Back to Campus, Drug to Treat Severe Cases of COVID-19, Invention of Aerosol Box, and other information that is informative yet calming the audiences. Due to information limitation on the website towards the public, except residents of the Universiti Malaya itself, the researcher only found information related to COVID-19 News, home learning regulations, COVID-19 developments, how to deal with COVID-19, guidelines for workers and students who want to come to the campus area, and positive case reporting procedures.



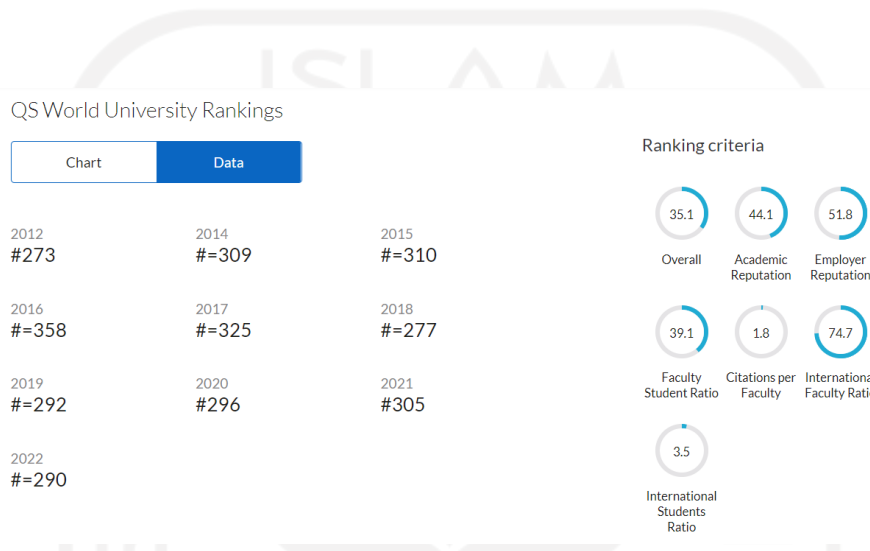
**Picture 2.4**  
**COVID-19 BHEP Page**

Universiti Malaya formed COVID-19 BHEP on its website page. BHEP COVID-19 are committees that manage all planning, implementation, and compliance by all students related to the COVID-19 pandemic threats within the campus area. On that page, it showed many information and documents related to COVID-19 such as New Norms Book, Standard Operations Procedures (S.O.P), The National Recovery Plan by Phase Parameters Implementation, COVID-19 in Malaysia update, National COVID-19 Immunization Programme, Notification of Total Lockdown Order Date, and other Forms aimed to the residents. Aside from COVID-19 information, the researcher found some online webinar posters on the website and hyperlinks to the e-library.

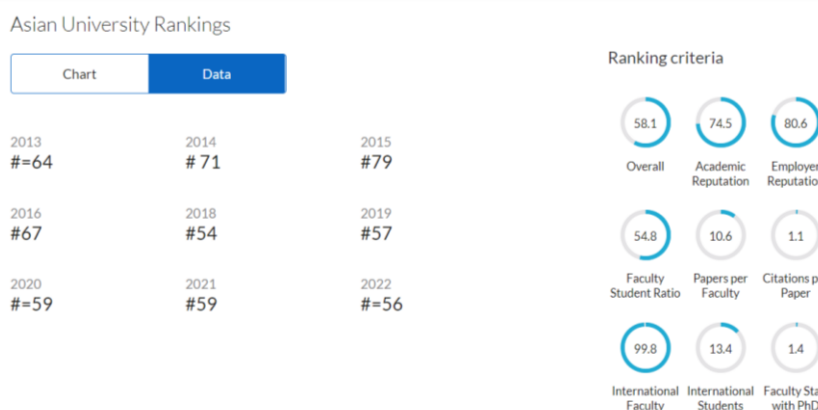
## **B. Universitas Indonesia**

The Dutch colonial government built an Institute of Health Science in 1849, specializing in medical science. After going through name changes from time to time, in 1947 changed its name to *Universiteit van Indonesië* or known as Universitas Indonesia. Universitas Indonesia has grown progressively into an institution that aims to become a leader in the fields of humanity and civilization by balancing academic values, morality, and

arts. Through these advantages, Universitas Indonesia intends to generate Indonesia into a more prosperous and democratic society, with a focus on peace, justice, and strong environmental values. Universitas Indonesia holds the vision “Embody the University of Indonesia becomes an independent and superior state university and is able to solve problems and challenges at the national and global levels, towards excellence in Southeast Asia”. Aligned with their vision, Universitas Indonesia ranked #290 in the world and ranked #56 according to QS World Top Universities.



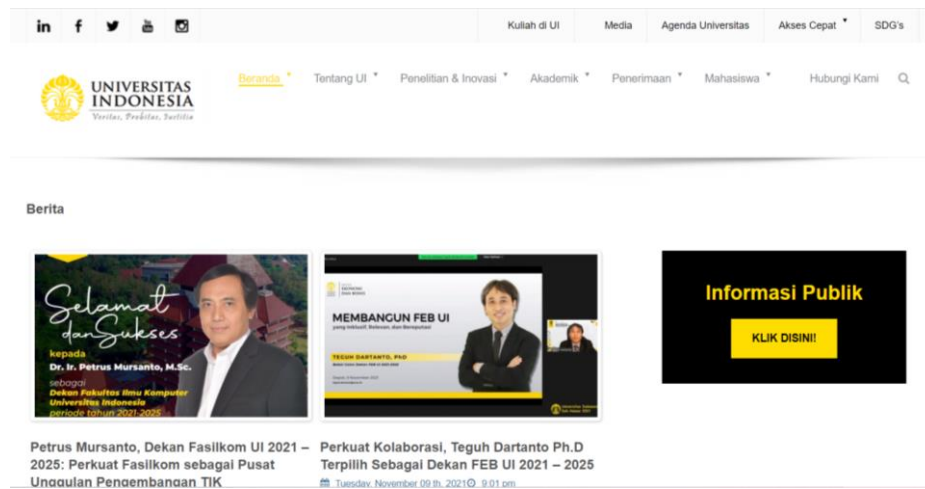
**Picture 2.5**  
**Universitas Indonesia on QS World Rankings**



**Picture 2.6**  
**Universitas Indonesia on QS Asia Rankings**

By utilizing technological advances, Universitas Indonesia has created their own official website page <https://www.ui.ac.id/> which achieve rank #1 on website universities rank in Indonesia according to Webometrics. On the website, there are several features such

as the homepage, about UI, research & innovation, academic, admissions, student and university profile videos. On the homepage, the audiences will see the latest news and



announcements. Mostly, the news is about events or innovations that happened in Universitas Indonesia. For COVID-19 information, the audience must type and search it through the magnifier icon.

**Picture 2.7**  
**Homepage of Universitas Indonesia Website**

At the bottom of the homepage, it shows a hyperlink page named “Student Activities” containing lists of communities and activities which students can attend. Although, there is no description of the communities and activities yet. Information related to COVID-19 is more found and visible by the researcher on each faculty website compared to the main website of Universitas Indonesia which is interesting.

**COVID-19 UPDATES**

Pastikan Anda telah membaca **Latest Updates** Fakultas Hukum UI mengenai COVID-19 terkait berbagai pengumuman, pembelajaran jarak jauh, pencegahan dan prosedur pelaporan kasus COVID-19 di Fakultas Hukum UI.

[Selengkapnya](#)



Pojok COVID-19

<p><b>4,229,813</b></p> <p>TERKONFIRMASI</p> <p>+1,281 Kasus</p>	<p><b>21,625</b></p> <p>KASUS AKTIF</p> <p>81% Kasus Aktif</p>	<p><b>4,065,425</b></p> <p>SEMBUH</p> <p>+2,139 Kasus Sembuh</p>	<p><b>142,763</b></p> <p>MENINGGAL</p> <p>+17 Kasus Meninggal</p>
------------------------------------------------------------------	----------------------------------------------------------------	------------------------------------------------------------------	-------------------------------------------------------------------

**Informasi Covid-19**

[Baca Selengkapnya](#)

**Inovasi Penanganan Covid-19**

[Baca Selengkapnya](#)

Video Safety Induction FMIPA UI

Watch on [YouTube](#)

**TANGGAP PANDEMI COVID-19 2020**

DITERBITKAN OLEH  
MEDICAL EDUCATION UNIT  
FAKULTAS KEDOKTERAN UNIVERSITAS INDONESIA

**BUKU RANCANGAN PENGAJARAN (BRP)**

UNTUK MAHASISWA KEDOKTERAN DAN PROFESI KESEHATAN

ISBN: 987-602-409-624-3

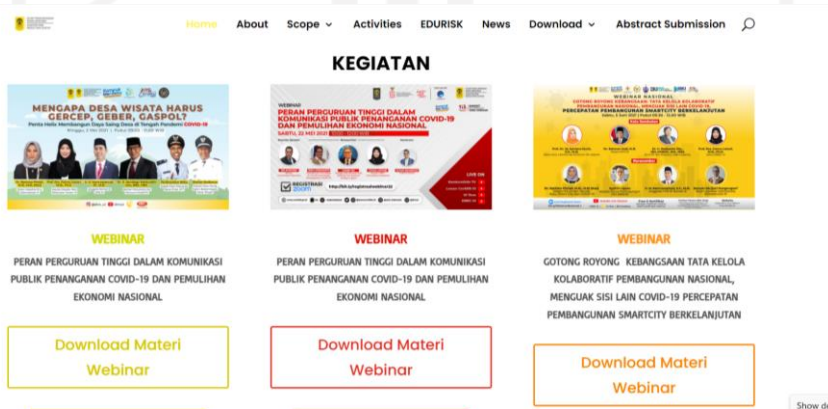
KLIK DI SINI

"From FKUI, for INDONESIA"



**Picture 2.8**  
**COVID-19 Headline in The Faculty of Law, Social and Political Science, Mathematics and Natural Science, Medical Science and Computer Science's Websites**

Information headlines about COVID-19 can be seen on the homepages of the faculty of law, medical science, computer science, social and political science, mathematics, and natural sciences websites. The hyperlinks from each of these faculties mostly contain learning guidelines during COVID-19, the UI Chancellor's letter regarding COVID-19 precautions, COVID-19 prevention protocols, COVID-19 task force contacts, and infographic posters related to COVID-19, and videos related to health protocols in the new normal era.

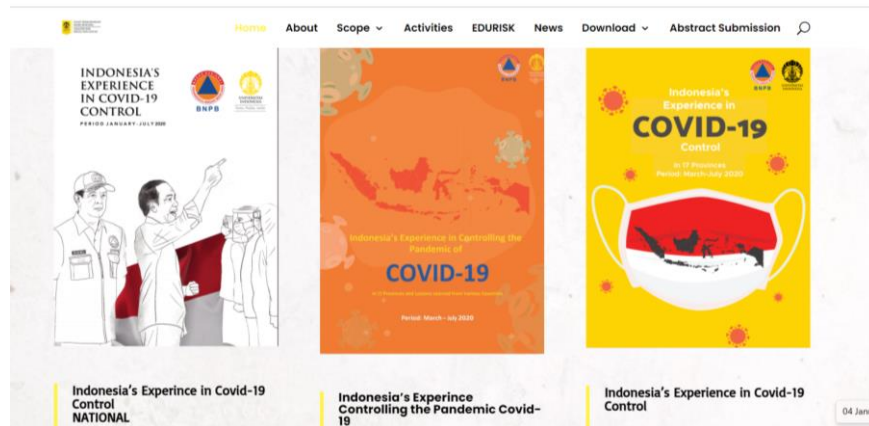


**Picture 2.9**  
**DRRC Website Homepage**

Apart from COVID-19 task forces in every faculty, Universitas Indonesia also relies on the DRRC in dealing with this pandemic. Since then, DRCC has been appointed as a special work unit for community service in Indonesia. Aims to provide disaster-related services, training and online learning for disaster workers, digital products for disaster

services and services, innovations related to the disaster, consultation, and advocacy for disasters in Indonesia while also providing profit for Universitas Indonesia.

**Picture 2.10**



**COVID-19 E-books**

In times of pandemics, the DRRC website delivers information about the agenda of educational and informative webinars related to COVID-19. The materials, YouTube links, and certificates on webinars can be accessed by the audience freely. Furthermore, Universitas Indonesia collaborated with Badan Nasional Penanggulangan Bencana (BNPB) in publishing some e-books related to Indonesia's experience in dealing with the COVID-19 outbreak.



## **CHAPTER 3**

### **RESEARCH FINDINGS & DISCUSSIONS**

#### **A. Research Description**

In the previous explanation, this research requires data collection by distributing questionnaires to the respondents. Respondents in this study were students from the Universiti Malaya and Universitas Indonesia who used their university websites to search for information related to lectures. The distribution of the questionnaire in this research used purposive sampling. The respondents have a requirement that they should have access at least twice. The questionnaire consisted of 79 questions distributed to 200 students in this study. If some of the questionnaires are not filled out or are damaged, the questionnaires are not feasible. Hence, the number of required questionnaires is reduced and affects the number of desired ones.

Before distributing the questionnaires to all target respondents, the researcher tested the questionnaires with validity and reliability tests. The validity test is used to determine the accuracy of a question instrument in measurement, while the reliability test is used to determine the consistency of the question instrument (Dewi, 2018). After getting the data that has been tested, the researcher is immediately able to process it. The steps for processing data are editing, coding, tabulating, and then data analysis using SPSS. Details of the data that have been processed using SPSS can be seen in the data recapitulation.

In this discussion, we will discuss the description of the results of distributing questionnaires conducted by researchers online using the help of google forms to students at Universiti Malaya and Universitas Indonesia. The variables are students' information needs which becomes X and university website quality which becomes Y, and. These variables are divided into 6 sub-variables, namely cognitive needs (X1), personal integrative needs (X2), social integrative needs (X3), usability quality (Y1), information quality (Y2), interaction quality (Y3). The description of the research results is as follows:

#### **B. Validity Test**

A validity test was conducted to determine the level of validity of the instrument used. The research instrument can be said to be valid if it is able to

measure what is desired and can reveal data from the variables studied appropriately. In this study, validity testing was carried out using questionnaire data from filling out respondents from the Universiti Malaya and Universitas Indonesia to test the validity of the questionnaire. The r-table obtained is 0.1946 and 0.1966 through the r-distribution table at a significant level of 5%. From the results of these calculations, a correlation coefficient will be accepted, which is used to measure the level of validity of an item and determine whether an item is suitable for use or not (Dewi, 2018). The results of testing the validity of the questionnaire in this study are as follows:

### 1. Universiti Malaya's Website

**Tabel 3.1**  
**Validity Test Results of Cognitive Needs Variable (Y1)**

Indicator	R-count	R-tabel	Description
Y1_1	0,588	0,1946	Valid
Y1_2	0,625		Valid
Y1_3	0,592		Valid
Y1_4	0,635		Valid
Y1_5	0,580		Valid
Y1_6	0,530		Valid
Y1_7	0,648		Valid

Based on Table 3.1, seven question indicators in the cognitive needs variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**Tabel 3.2**  
**Validity Test Results of Personal Needs Variable (Y2)**

Indicator	R-count	R-tabel	Description
Y2_1	0,692	0,1946	Valid
Y2_2	0,575		Valid
Y2_3	0,656		Valid
Y2_4	0,684		Valid
Y2_5	0,684		Valid



Based on Table 3.2, 5 question indicators in the personal needs variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**Tabel 3.3**

**Validity Test Results of Social Needs Variable (Y3)**

Indicator	R-count	R-tabel	Description
Y3_1	0,579	0,1946	Valid
Y3_2	0,904		Valid
Y3_3	0,825		Valid

Based on Table 3.3, three question indicators in the social needs variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**Tabel 3.4**

**Validity Test Results of Usability Variable (X1)**

Indicator	R-count	R-tabel	Description
X1_1	0,506	0,1946	Valid
X1_2	0,403		Valid
X1_3	0,598		Valid
X1_4	0,317		Valid
X1_5	0,341		Valid
X1_6	0,577		Valid
X1_7	0,657		Valid
X1_8	0,640		Valid
X1_9	0,567		Valid
X1_10	0,444		Valid
X1_11	0,555		Valid
X1_12	0,553		Valid
X1_13	0,429		Valid
X1_14	0,598		Valid
X1_15	0,647		Valid
X1_16	0,508		Valid
X1_17	0,571		Valid
X1_18	0,663		Valid
X1_19	0,539		Valid

X1_20	0,483		Valid
X1_21	0,213		Valid
X1_22	0,284		Valid
X1_23	0,522		Valid
X1_24	0,527		Valid
X1_25	0,288		Valid
X1_26	0,554		Valid
X1_27	0,669		Valid
X1_28	0,471		Valid
X1_29	0,432		Valid
X1_30	0,441		Valid
X1_31	0,536		Valid
X1_32	0,362		Valid

Based on Table 3.4, thirty two question indicators in the usability variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**Tabel 3.5**

**Validity Test Results of Information Quality Variable (X2)**

Indicator	R-count	R-table	Description
X2_1	0,367	0,1946	Valid
X2_2	0,265		Valid
X2_3	0,361		Valid
X2_4	0,445		Valid
X2_5	0,379		Valid
X2_6	0,352		Valid
X2_7	0,351		Valid
X2_8	0,448		Valid
X2_9	0,364		Valid
X2_10	0,603		Valid
X2_11	0,545		Valid
X2_12	0,435		Valid
X2_13	0,454		Valid
X2_14	0,514		Valid
X2_15	0,569		Valid
X2_16	0,502		Valid
X2_17	0,541		Valid
X2_18	0,558		Valid
X2_19	0,326		Valid
X2_20	0,563		Valid

X2_21	0,566		Valid
X2_22	0,564		Valid
X2_23	0,474		Valid
X2_24	0,514		Valid
X2_25	0,555		Valid
X2_26	0,471		Valid
X2_27	0,340		Valid

Based on Table 3.5, twenty seven question indicators in the information quality variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**Tabel 3.6**

**Validity Test Results of Interaction Quality Variable (X3)**

Indicator	R-count	R-table	Description
X3_1	0,303	0,1946	Valid
X3_2	0,633		Valid
X3_3	0,664		Valid
X3_4	0,829		Valid
X3_5	0,778		Valid

Based on Table 3.6, five question indicators in the interaction quality variable were declared valid as measured by the R-count value greater than the R-table value (0.1946).

**2. Website Universitas Indonesia**

**Tabel 3.7**

**Validity Test Results of Cognitive Needs Variable (Y1)**

Indicator	R-count	R-table	Description
Y1_1	0,786	0, 1966	Valid
Y1_2	0,777		Valid
Y1_3	0,605		Valid
Y1_4	0,642		Valid
Y1_5	0,712		Valid
Y1_6	0,623		Valid
Y1_7	0,634		Valid

Based on Table 3.7, seven question indicators in the cognitive need variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

**Tabel 3.8**

**Validity Test Results of Personal Needs Variable (Y2)**

<b>Indicator</b>	<b>R-count</b>	<b>R-tabel</b>	<b>Description</b>
Y2_1	0,664	0, 1966	Valid
Y2_2	0,729		Valid
Y2_3	0,479		Valid
Y2_4	0,716		Valid
Y2_5	0,631		Valid

Based on Table 3.8, five question indicators in the personal need variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

**Tabel 3.9**

**Validity Test Results of Social Needs Variable (Y3)**

<b>Indicator</b>	<b>R-count</b>	<b>R-tabel</b>	<b>Description</b>
Y3_1	0,799	0, 1966	Valid
Y3_2	0,899		Valid
Y3_3	0,838		Valid

Based on Table 3.9, three question indicators in the social need variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

**Tabel 3.10**

**Validity Test Results of Usability Variable (X1)**

<b>Indicator</b>	<b>R-count</b>	<b>R-tabel</b>	<b>Description</b>
X1_1	0,710	0, 1966	Valid
X1_2	0,677		Valid

X1_3	0,643		Valid
X1_4	0,272		Valid
X1_5	0,587		Valid
X1_6	0,681		Valid
X1_7	0,754		Valid
X1_8	0,475		Valid
X1_9	0,573		Valid
X1_10	0,688		Valid
X1_11	0,612		Valid
X1_12	0,444		Valid
X1_13	0,650		Valid
X1_14	0,735		Valid
X1_15	0,661		Valid
X1_16	0,647		Valid
X1_17	0,710		Valid
X1_18	0,728		Valid
X1_19	0,679		Valid
X1_20	0,685		Valid
X1_21	0,337		Valid
X1_22	0,495		Valid
X1_23	0,534		Valid
X1_24	0,511		Valid
X1_25	0,603		Valid
X1_26	0,579		Valid
X1_27	0,566		Valid
X1_28	0,454		Valid
X1_29	0,618		Valid
X1_30	0,688		Valid
X1_31	0,577		Valid
X1_32	0,468		Valid

Based on Table 3.10, thirty two question indicators in the usability variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

**Tabel 3.11**

**Validity Test Results of Information Quality Variable (X2)**

Indicator	R-count	R-tabel	Description
X2_1	0,370	0, 1966	Valid
X2_2	0,256		Valid
X2_3	0,583		Valid

X2_4	0,661		Valid
X2_5	0,565		Valid
X2_6	0,521		Valid
X2_7	0,325		Valid
X2_8	0,554		Valid
X2_9	0,360		Valid
X2_10	0,299		Valid
X2_11	0,459		Valid
X2_12	0,539		Valid
X2_13	0,480		Valid
X2_14	0,615		Valid
X2_15	0,564		Valid
X2_16	0,529		Valid
X2_17	0,672		Valid
X2_18	0,640		Valid
X2_19	0,538		Valid
X2_20	0,513		Valid
X2_21	0,495		Valid
X2_22	0,481		Valid
X2_23	0,490		Valid
X2_24	0,566		Valid
X2_25	0,606		Valid
X2_26	0,592		Valid
X2_27	0,588		Valid

Based on Table 3.11, twenty seven question indicators in the information quality variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

**Tabel 3.12**

**Validity Test Results of Interaction Quality Variable (X3)**

<b>Indicator</b>	<b>R-count</b>	<b>R-tabel</b>	<b>Description</b>
X3_1	0,695	0, 1966	Valid
X3_2	0,805		Valid
X3_3	0,814		Valid
X3_4	0,505		Valid
X3_5	0,603		Valid

Based on Table 3.12, five question indicators in the interaction quality variable were declared valid as measured by the R-count value greater than the R-table value (0.1966).

### C. Reliability Test

The researcher uses a reliability test to provide precise results where the questionnaire is categorized as reliable if it shows the constant of the measurement results and determines the measurement results. The reliability test will prove that the questionnaire can be justified as a measuring tool for this research (Dewi, 2018). In this study, the researcher used the Cronbach's Alpha method, and here are the results of the reliability test.

**Tabel 3.13**  
**Universiti Malaya Website Reliability Test Results**

No.	Variable	N of item	Cronbach's alpha	Description
1	Cognitive (X1)	7	0,701	Reliable
2	Personal (X2)	5	0,674	Reliable
3	Social (X3)	3	0,680	Reliable
4	Usability (Y1)	32	0,899	Reliable
5	Information quality YX2)	27	0,860	Reliable
6	Interaction (Y3)	5	0,678	Reliable

Based on Table 3.13, it showed that Cronbach's alpha value of each variable is greater than 0,6. Thus, it concluded that the questionnaire data is reliable.

**Tabel 3.14**  
**Universitas Indonesia Website Reliability Test Results**

No.	Variable	N of item	Cronbach's alpha	Description
1	Cognitive (X1)	7	0,812	Reliable
2	Personal (X2)	5	0,655	Reliable
3	Social (X3)	3	0,802	Reliable
4	Usability (Y1)	32	0,943	Reliable
5	Information quality YX2)	27	0,895	Reliable
6	Interaction (Y3)	5	0,702	Reliable

Based on Table 3.14, it showed that Cronbach's alpha value of each variable is greater than 0,6. Thus, it concluded that the questionnaire data is reliable.

## D. Data Correlation (Pearson)

Pearson Product Moment correlation analysis is used to determine the relationship between the quality of the university website and the fulfillment of student information needs during COVID-19. The steps of this analysis are as follows:

### 1. Formulate a Hypothesis

H0 = There is no correlation between students information needs and the university website quality

H1 = There is a correlation between students information needs and the university website quality

### 2. Analysis Test Criteria

H0 is accepted if the p-value  $> 0.05$ , which means there is no significant correlation between students information needs and the university website quality

H0 is rejected if the p-value  $< 0.05$ , which means there is a significant correlation between students information needs and the university website quality

The results of the Pearson Product Moment correlation analysis can be shown in the following table:

### 1. Result of Universiti Malaya's Website Quality

**Tabel 3.15**

### Results of Website Quality Correlation Data with Student Information Needs at Universiti Malaya

		Correlations					
		X1	X2	X3	Y1	Y2	Y3
X1	Pearson Correlation	1	,809**	,374**	,706**	,700**	,589**
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	102	102	102	102	102	102
X2	Pearson Correlation	,809**	1	,313**	,443**	,692**	,644**
	Sig. (2-tailed)	,000		,001	,000	,000	,000
	N	102	102	102	102	102	102
X3	Pearson Correlation	,374**	,313**	1	,472**	,390**	,493**
	Sig. (2-tailed)	,000	,001		,000	,000	,000
	N	102	102	102	102	102	102
Y1	Pearson Correlation	,706**	,443**	,472**	1	,441**	,442**
	Sig. (2-tailed)	,000	,000	,000		,000	,000
	N	102	102	102	102	102	102



Y2	Pearson Correlation	,700**	,692**	,390**	,441**	1	,503**
	Sig. (2-tailed)	,000	,000	,000	,000		,000
	N	102	102	102	102	102	102
Y3	Pearson Correlation	,589**	,644**	,493**	,442**	,503**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	
	N	102	102	102	102	102	102

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### **The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Usability (Y1)**

Based on the results of the research above, the correlation coefficient between student's cognitive needs (X1) and website usability (Y1) is 0.706 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the usability variable and cognitive needs. The researcher saw that the students had no difficulties operating the Universiti Malaya website page. The ease of access for students to access website pages which contain help features, e-libraries, and information related to COVID-19 can be seen by researchers. The placement of information is also neatly arranged to make it easy for students to find information.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Usability (Y1)**

Based on the results of the research above, the correlation coefficient between student's personal needs (X2) and usability (Y1) and is 0.700 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the usability variable and personal needs. Based on what the researchers saw on the Universiti Malaya website page, the information provided was credible in the student and health fields. The design on the website page also includes the Universiti Malaya logo, and there are background photos of the university building and students doing activities in the university area. Due to limitations in accessing information, researchers only found some information related to COVID-19 news updates, home learning regulations, and arriving guidelines.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Usability (Y1)**

Based on the results of the research above, the correlation coefficient between student's social needs (X3) and usability (Y1) is 0.589 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a unidirectional and significant positive relationship between

the usability variable and social needs. The Universiti Malaya website page has many features to help students find information according to their needs. The calendar events feature makes it easy for students to check the online social events organized by the university every month. There is also a Student Life feature where students can find a variety of student activities and counseling.

### **The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Information Quality (Y2)**

Between student's cognitive needs (X1) and information quality (Y2) is 0.443 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variable information quality and cognitive needs. Based on what the researchers saw on the Universiti Malaya website page, information or news related to COVID-19 is always updated every week but not information related to updates on the spread of COVID-19 in the university area. Although the test results show a significant relationship between the two variables, 8.8% of Universiti Malaya students feel that the COVID-19 information on the website does not match their information needs.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Information Quality (Y2)**

Based on the results of the research above, the correlation coefficient between student's personal needs (X2) and information quality (Y2) and is 0.692 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variable information quality and personal needs. According to data collected by researchers, 98% of students feel that the Universiti Malaya website helps them find the information they need. However, some students feel that the information in the e-library is not easy to understand. This data can be an evaluation to maximize the quality of information delivery.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Information Quality (Y2)**

Based on the results of the research above, the correlation coefficient between student's social needs (X3) and information quality (Y2) and is 0.644 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variable information quality and social needs. Access to the Event@UM feature is easy to find. In addition, complete information regarding the time and place of the event

is listed on the website page so that students can easily follow the available series of events. However, not all students use the website to find out which event is held. According to the questionnaire, 10.7% of students do not use the website to attend the event.

### **The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Interaction Quality (Y3)**

The correlation coefficient between students' cognitive needs (X1) and interaction quality (Y3) is 0.472 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a positive and unidirectional relationship between the variables of interaction quality and cognitive needs. The Universiti Malaya website has provided contact persons for each faculty, campus administration department, and services in the campus area. However, 10.8% of students feel that the Universiti Malaya website is less helpful for contacting on-campus communities or organizations. Therefore, the researcher suggests Universiti Malaya add community contacts and related organizations to maximize the quality of interaction based on its services.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Interaction Quality (Y3)**

Based on the results of the research above, the correlation coefficient between student's personal needs (X2) and interaction quality (Y3) is 0.390 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the interaction quality variable and personal needs. A unidirectional and significant positive relationship can be seen from several features on the Universiti Malaya website. According to students, the UM Services feature helps them solve lecture administration problems. In addition to assisting in completing administration, UM Services are also used by students to book facilities in the university area as needed.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Interaction Quality (Y3)**

Based on the results of the research above, the correlation coefficient between student's social needs (X3) and interaction quality (Y3) is 0.493 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the interaction quality variable and social needs. Based on what the researchers saw on the Universiti Malaya website, the quality of interaction services is quite good, with various features that connect students with the campus. However, the website is deemed insufficient

for students to include contact details for lecturers and the student community. With a good and more complete interaction service, the university will provide more sources of information to others. The need for social integration is not only the need of students but also the need of the Universiti Malaya so that information can be more widely spread.

## 2. Result of Universitas Indonesia's Website Quality

**Tabel 3.16**  
**Results of Website Quality Correlation Data with Student Information Needs at the University of Indonesia**

		Correlations					
		X1	X2	X3	Y1	Y2	Y3
X1	Pearson Correlation	1	,927**	,753**	,895**	,815**	,767**
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	100	100	100	100	100	100
X2	Pearson Correlation	,927**	1	,747**	,854**	,808**	,706**
	Sig. (2-tailed)	,000		,000	,000	,000	,000
	N	100	100	100	100	100	100
X3	Pearson Correlation	,753**	,747**	1	,703**	,729**	,647**
	Sig. (2-tailed)	,000	,000		,000	,000	,000
	N	100	100	100	100	100	100
Y1	Pearson Correlation	,895**	,854**	,703**	1	,747**	,775**
	Sig. (2-tailed)	,000	,000	,000		,000	,000
	N	100	100	100	100	100	100
Y2	Pearson Correlation	,815**	,808**	,729**	,747**	1	,640**
	Sig. (2-tailed)	,000	,000	,000	,000		,000
	N	100	100	100	100	100	100
Y3	Pearson Correlation	,767**	,706**	,647**	,775**	,640**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	
	N	100	100	100	100	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Usability (Y1)

Based on the results of the research above, the correlation coefficient between website cognitive needs (X1) and website usability (Y1) is 0.895 with a significance of  $0.000 < \alpha < 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the usability variable and cognitive needs. Researchers see that Universitas Indonesia makes it easier for students to access web pages to find the information they need. Based on the questionnaire, students had no difficulty operating website pages, help features, e-libraries

and information related to COVID-19. The information layout is neatly arranged and seems to have a minimalist design.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Usability (Y1)**

The correlation coefficient between student's personal needs (X2) and usability (Y1) is 0.815 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the usability variable and personal needs. The main page of Universitas Indonesia website provides credible information in the field of student affairs. The design on the website page also includes the logo of the Universitas Indonesia as an identity. Due to limitations in accessing information, the researcher found a page entitled "Information Systems at UI". The page consists of several features, namely SIAK-NG (Next Generation Academic Information System), SCeLE UI (Student-Centered e-Learning Environment) and Webmail UI. These features can assist students in finding information according to their needs to support their lecture activities.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Usability (Y1)**

Based on the results of the research above, the correlation coefficient between social needs (X3) and usability (Y1) is 0.767 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the usability variable and social needs. The Universitas Indonesia's website page has many features to help students get information. Webmail UI helps to provide students with regular information about lectures, COVID-19 and events organized by the university.

### **The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Information Quality (Y2)**

Based on the results of the research above, the correlation coefficient between cognitive needs (X1) and information quality (Y2) is 0.854 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variable information quality and cognitive needs. Based on what the researchers saw, Universitas Indonesia is always updated regarding achievements and the results of discussions related to certain issues such as COVID-19. On the main page, information related to COVID-19 is no longer updated, but researchers found that on the faculty website, there is updated information related to COVID-19. According to students, information

related to COVID-19 has been listed in great detail on the website, although it is not as updated as it used to be. As many as 98% of Universitas Indonesia students trust and rely on web pages to find reliable information.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Information Quality (Y2)**

Based on the results of the research above, the correlation coefficient between student's personal needs (X2) and information quality (Y2) is 0.808 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variable information quality and personal needs. As many as 94% of students feel that the information provided in the help feature on Universitas Indonesia website helps them overcome their lecture administration problems. Moreover, 98.9% of students feel that the e-library helps them do their assignments. The main factor is the completeness of information and journals provided by the e-library. In addition, Universitas Indonesia has a great website, namely S CeLE UI, which functions as an announcement website and assignment collection for students.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Information Quality (Y2)**

Based on the results of the research above, the correlation coefficient between student's social needs (X3) and information quality (Y2) is 0.706 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the variables of information quality and social needs. This can be seen by the researcher when opening the website of Universitas Indonesia that is attached very clearly with the list of student activity units and institutions that can be followed by students. In addition, there is information that is described in detail regarding the facilities in the university area. However, information related to the event is not listed on the website page. According to students, information related to webinars or other events organized by the university is not provided on the website, but the information is shared via Instagram and emails.

### **The Correlation between Student's Cognitive Needs in Universiti Malaya (X1) and Website Interaction Quality (Y3)**



The correlation coefficient between students' cognitive needs (X1) and interaction quality (Y3) is 0.703 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the interaction quality variable and cognitive needs. Universitas Indonesia's website has provided contact persons in each part of the university. There is a link page that reads Universitas Indonesia's information system on the website. Due to limitations in accessing information, researchers only found several other information systems link pages, such as ACTS (ASEAN Credit Transfer System and SIAK (Academic Information System). Information.

### **The Correlation between Student's Personal Needs in Universiti Malaya (X2) and Website Interaction Quality (Y3)**

The correlation coefficient between student's personal needs (X2) and interaction quality (Y3) is 0.729 with a significance of  $0.000 < \alpha 0.05$ . It can be concluded that there is a direct and significant positive relationship between the interaction quality variable and personal needs. Along with several features that available on Universitas Indonesia's website, students find it easier to contact the university. In addition, 97% of students think that Universitas Indonesia website has a good reputation, so they feel safe when putting their personal information on the website. In supporting their lectures, the SCeLE website helps students interact with lecturers. SCeLE functions as a place for study, SAP (Lecture Event Unit), quizzes, and assignment collection.

### **The Correlation between Student's Social Needs in Universiti Malaya (X3) and Website Interaction Quality (Y3)**

Based on the results of the research above, the correlation coefficient between student's social needs (X3) and interaction quality (Y3) is 0.647 with a significance of  $0.000 < \alpha 0.05$ , so it can be concluded that there is a direct and significant positive relationship between the interaction quality variable and social needs. The website's interaction quality is quite good, with various features that connect students with the university. However, 12% of students did not use the website to attend online events such as webinars, and the researchers did not find any related information. Information about the event was shared on Instagram and Email but not shown on the website. This research can be an evaluation for the future to maximize the quality of interaction because Universitas Indonesia also needs social integration to spread the information widely.



## **E. Discussion**

COVID-19 pandemic forces students to have to study from home. In response to this, the universities are trying everything so that online learning can be carried out properly, one of which is by using the university's website as information media. Those information media can be referred to as effective media if they can fulfill the audience's needs. Since students have power over their media consumption, university websites need to compete with other media to fulfill students' information needs, and website quality is an essential component in this competition. In this case, the Uses and Gratification Theory is needed to assess whether the university website has been an effective media in fulfilling students' information needs during COVID-19. The reason for using uses and gratification theory in this study is because it helps the researcher to see media effectiveness from the relationship between media content and audience based on its function. The existence of a need for each audience's psychological condition will lead to expectations for the media then lead to different media patterns, resulting in the fulfillment of needs. In the uses and gratification theory, these needs are divided into 5 categories; cognitive, affective, personal integrative, social integrative and tension free. Since this research discusses educational websites, the researcher excludes affective and tension-free needs dimension. This research aims to find the correlation between Universiti Malaya and the Universitas Indonesia's websites quality with students' information needs during COVID-19. After distributing the survey to 200 students and analyze with the Pearson correlation method, the results are as follows:

### **1. Students' Cognitive Needs towards Universities' Website Quality**

In this research, most of the Universiti Malaya's students assumed the website had met their cognitive needs of students who wanted to know information about the implementation of online learning and keep updated regarding COVID-19 news around campus. The survey results show Universiti Malaya website's usability has a strong relationship with cognitive needs. In contrast, information and interaction quality is strong enough with cognitive needs. The relationship between variables indicates Universiti Malaya's website is competent enough as a media to deliver information in terms of students' cognitive needs.

Based on the survey, Universitas Indonesia's students find it easy to operate the website to search for online lecture information updates. According to statistical analysis, the website's usability and information quality have a very strong relationship with students'

cognitive needs. Meanwhile, interaction quality has a strong relationship with cognitive needs. From the side of the strong relationship between the website's quality and cognitive needs, it showed that Universitas Indonesia's website has good quality and effective media for students.

## **2. Students' Personal Needs towards Universities' Website Quality**

Universiti Malaya's students feel that the website is enough to help them do their assignments with the completeness of books and journals in the e-library. The website information quality has a strong relationship with personal needs and interaction quality has a relationship with personal needs with a weak relationship. Unfortunately, the relationship between the quality of interaction with personal needs is quite weak due to student's ignorance about the features that are provided to help them with online lecture problems. Therefore, Universiti Malaya should appeal to their students to use the help features on the website. Also, improving the feature placement can be a solution for the Universiti Malaya website in the future.

Surveys reveal that Universitas Indonesia's website feature's completeness helped students find and collect the assignment on time. Through the SIAK UI website, students can find out what activities will be carried out during one semester. By this, the website is competent in meeting the information needs of student's personal needs. The website's usability and information quality have a very strong relationship with the fulfillment of student personal information, while the quality of website interaction has a strong relationship. The website's information and features can support disseminating information related to lectures and COVID-19 to Universitas Indonesia's students because of its completeness.

## **3. Students' Interaction Needs towards Universities' Website Quality**

The interaction quality of the Universiti Malaya's website is quite good because various features connect students with universities. However, students find it difficult to find contact between lecturers and the student community, so they cannot reach them. The UM Services feature on the website helps students complete lecture administration and booking facilities at the university. The website clearly provides contact persons for each faculty, campus administration department, and services, but the website does not include community/organization contacts, so students feel less helpful. In fulfilling integrative social

needs, students feel entertained and enrich their knowledge through regular daily webinars. By this, it can be concluded that the results of usability and interaction have a strong enough relationship with social needs, while the information quality has a strong relationship with social needs.

Universitas Indonesia's website already has sufficient quality of interaction services based on the survey results. The features provided indicate it, but some students do not use the website to find out about events. Universitas Indonesia's website has also provided information about the contact persons in each part of the university and through the available information system link pages. On the website, there is a list of student activity units and institutions where students can participate. However, information related to social events is not listed on the website page but is sent directly to each student's email.

The researcher has analyzed the survey data variables from students at Universiti Malaya and Universitas Indonesia using Pearson correlation. Based on these results, the researcher concludes that  $H_0$  is rejected because the p-value is  $<0.05$ , which means there is a significant correlation between students' information needs and the university website quality. Results from both universities indicate that the website is an effective media to convey information about lectures or COVID-19 towards students. Universiti Malaya's website provides information to the students through its features, such as e-library and UM Service. On the other hand, Universitas Indonesia fulfills their student's information needs during online lectures through website's link page, such as SIAK-NG and SCell UI.

## **F. Research Conclusion**

The research data are taken from the experiences of students at both universities towards website effectiveness as information media during online learning. Based on the survey, there is correlation of each variable in Universiti Malaya and Universitas Indonesia that indicates the websites are effective media to support information dissemination and fulfilling students' information needs. Universiti Malaya's website excels with their features such as e-library and UM Service, even though the relationship between student's personal needs and website's interaction quality is quite weak. Universitas Indonesia's website excels with their various linkpage such as SIAK-NG and SCell UI which has helped the students through online lectures.

## **CHAPTER 4**

### **CONCLUSION & RECOMMENDATION**

#### **A. Conclusion**

In facing the lockdown era, the universities need to adapt to its condition by maximizing the use of the website to achieve student's learning goals in effective ways. As written in Uses & Gratification theory, the audience has an active role in interpreting and integrating over the media they use. In examining whether the website is effective, the audience's satisfaction of its quality is needed. Thus, this research aims to find the correlation between university website's quality as information media towards student information needs during COVID-19. This research uses the Uses & Gratification theory that is categorized into three dimensions (cognitive needs, personal integration needs, social integration needs) and WebQual method for assessing the quality of the website. Research data obtained from surveys distributed to the students based on their experience in using from each university's website.

In 2021, four universities in Malaysia were ranked in the top 10 best universities in Southeast Asia, one of which was Universiti Malaya, ranked number two. As a representation of one of the best websites in Southeast Asia, Universiti Malaya is one of the objects of this research. In addition, few studies have been found related to student satisfaction by website quality. Therefore, according to webometrics, the researcher decided to research the Universitas Indonesia, which is also one of the best university websites in the top ten categories. In a state of lockdown, the websites of the two universities appear to be active in providing information and supporting student learning activities through the website and the various features provided. The UM Services feature created by Universiti Malaya on its website has other features, namely UMPoint, ePay, UM Procurement, and UM Events. Meanwhile, Universitas Indonesia made SIAK-NG, SCeLe UI, and Webmail UI features to support student learning activities online.

In conducting this research, the researcher used Pearson Product Moment correlation analysis to find the relationship between variables (students' information needs and website quality) including sub-variables (cognitive needs, personal needs, social needs, usability, information quality and interaction quality). After being analyzed by correlation, the researcher found a relationship between the quality of the website and the information needs of students seen on Universiti Malaya and Universitas Indonesia websites. In conducting

this research, the researcher used Pearson Product Moment correlation analysis to find the relationship between variables (students' information needs and website quality), including sub-variables (cognitive needs, personal needs, social needs, usability, information and interaction quality). After analyzing the correlation, the researchers found a relationship between the quality of the website and the information needs of students seen on the websites of Universiti Malaya and Universitas Indonesia.

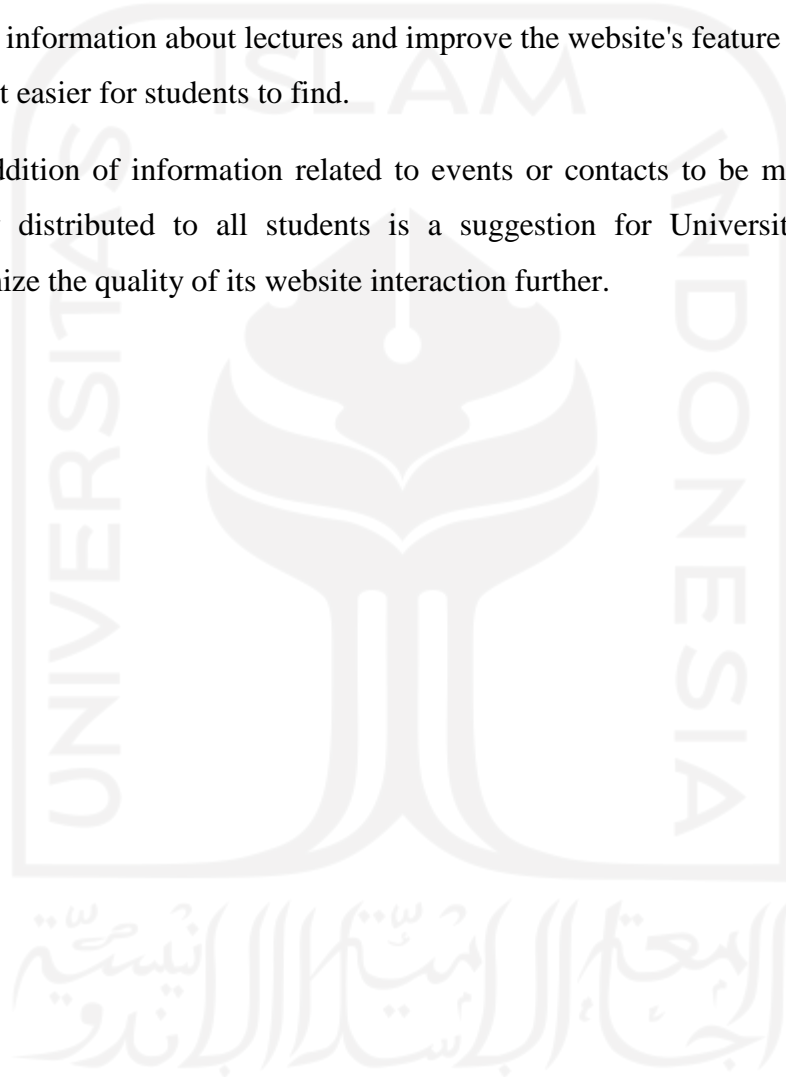
The survey results show that the Universiti Malaya website's information and interaction quality is strong enough for cognitive needs. Moreover, the website's usability has a strong relationship with cognitive needs. Meanwhile, the Universitas Indonesia website's usability and information quality strongly correlate with students' cognitive needs, while interaction quality strongly relates to cognitive needs. The relationship between variables indicates that Universitas Indonesia and Universiti Malaya websites have good quality and effectiveness as media in terms of students' cognitive needs. There is a strong relationship between personal needs on the Universiti Malaya's website usability and information quality. In contrast, their interaction quality has poor relationships with personal needs. Otherwise, Universitas Indonesia's website usability and information quality have a very strong relationship, while the quality of website interaction has a strong relationship with personal needs. Universiti Malaya's website usability and interaction have a strong relationship, while their information quality relates to social needs. Apart from that, Universitas Indonesia has a strong relationship between personal needs and the three aspects of website quality.

The results indicated by the p-value of the results of the analysis of the two universities, which is less than 0.05, means that there is a significant correlation between students' information needs and the university website quality. However, at Universiti Malaya, it was found that there was a weak relationship between personal needs and the quality of website interaction. It refers to the student's lack of knowledge regarding the features that support their interaction activities and the placement of less easy features to find. Meanwhile, at the Universitas Indonesia, information related to events can be listed on the website page more clearly to maximize the use of the website.

## **B. Recommendation**

By looking at the conclusions of the research that has been submitted, suggestions that can be given for further research:

1. Further research is recommended to focus on only one university but increase the number of respondents so that research can run more focused and answer more thoroughly and in detail.
2. The next researcher is recommended to reduce the number of questions but still follow the number of indicators so that respondents more easily understand the questions.
3. Universiti Malaya in the future is expected to encourage students to use the website to find information about lectures and improve the website's feature placement to make it easier for students to find.
4. The addition of information related to events or contacts to be more detailed and widely distributed to all students is a suggestion for Universitas Indonesia to maximize the quality of its website interaction further.





## REFERENCES

- Abbas, W. (2013). Analisa Kepuasan Mahasiswa terhadap Website Universitas Negeri Yogyakarta (UNY). Dalam Prosiding SNST hal 1-6, Universitas Wahid Hasyim Semarang.
- Al-Jahwari, Huda & Abusham, Eimad. (2019). A theoretical framework for designing educational websites based on scientific standards to non-native Arabic speakers. *International Journal of Engineering Business Management*. 11. 184797901984050. 10.1177/1847979019840500.
- Akbar, G., & Tjendrowaseno, T. I. (2013). Website Profil Sekolah Sebagai Media Informasi Dan Promosi. *IJNS-Indonesian Journal on Networking and Security*, 4(1).
- Bailey, J., & Pearson, S. (1983). Development of a Tool for Measuring and Analyzing Computer User Satisfaction. *Management Science*, 29(5), 530-545. Retrieved July 9, 2021, from <http://www.jstor.org/stable/2631354>
- Barnes, Stuart & Vidgen, Richard. (2002). An Integrative Approach to the Assessment of E-Commerce Quality.. *Journal of Electronic Commerce Research*. 3. 114-127.
- Damanik, Marudur P., and Erisva H. Purwaningsih. "E-government dan Aplikasinya di Lingkungan Pemerintah Daerah (Studi Kasus Kualitas Informasi Website Kabupaten Bengkalis Provinsi Riau)." *Jurnal Studi Komunikasi dan Media*, vol. 21, no. 2, 2017.
- Dewi, Dian Ayunita. (2018). Modul Uji Validitas dan Reliabilitas.
- Donna L. Hoffman, Thomas P. Novak, Marcos A. Peralta (1999) Information Privacy in the Marketplace: Implications for the Commercial Uses of Anonymity on the Web, *The Information Society: An International Journal*, 15:2, 129-139, DOI: 10.1080/019722499128583
- Fadillah, A. (2013). Efektivitas Website SMAN 5 Samarinda Sebagai Media Komunikasi dan Informasi Siswa. *eJournal Ilmu Komunikasi*, 1(1), 113-124. <https://ejournal.ilkom.fisip-unmul.ac.id/site/?p=728>
- Fadli, M. R. (2014). Pengaruh kondisi lingkungan kerja terhadap kinerja karyawan PT Bank Rakyat Indonesia kantor cabang Asia Afrika kota Bandung. [http://repository.upi.edu/13255/6/S\\_TB\\_0809156\\_Chapter3.pdf](http://repository.upi.edu/13255/6/S_TB_0809156_Chapter3.pdf)
- Gunawan, A. I. (2017). Hubungan kualitas pelayanan dengan kepuasan pelanggan. *Jurnal online mahasiswa bidang manajemen*, 1(1). Retrived from <https://jom.unpak.ac.id/index.php/ilmumanajemen/article/view/646>
- Hasugian, P. S. (2018). Perancangan Website sebagai Media Promosi dan Informasi. *Journal Of Informatic Pelita Nusantara*, 3(1). <http://e-jurnal.pelitanusantara.ac.id/index.php/JIPN/article/download/306/203>
- Hia, E. P. D., Prestiadi, D., Maghfiroh, S. I., & Oktaviani, V. M. (2020). The Use of Information and Communication Technology Through Website and Social Media as Public Relations Information Media. In 2nd Early Childhood and Primary Childhood Education (ECPE 2020) (pp. 269-274). Atlantis Press.
- Ifadah, Z., & Rochmaniah, A. (2014). OPINI MAHASISWA TERHADAP WEBSITE UNIVERSITAS MUHAMMADIYAH SIDOARJO SEBAGAI MEDIA INFORMASI. *Kanal*, 2(2), 107-206. Retrieved from <http://ojs.umsida.ac.id/index.php/kanal/article/download/296/267>
- Iswahyuni, I., Prihatiningsih, W., & Surahmad, S. (2017). Penggunaan internet sebagai media informasi oleh mahasiswa UPN "Veteran" Jakarta." *Jurnal Signal* 5(2).



- Kim, Hyejong, and Niehm, Linda S. (2009), "The Impact of Website Quality on Information Quality, Value, and Loyalty Intentions in Apparel Retailing," *Journal of Interactive Marketing*, 23(3), 221–33.
- Laugi, Saidah. (2018). Sistem Informasi berbasis Web dalam Penyelenggaraan Lembaga Pendidikan. *Shautut Tarbiyah* Ed. Ke-38 Th. XXIV. Retrieved from <https://ejournal.iainkendari.ac.id/shautut-tarbiyah/article/view/939>
- Melyco, M., Wahyudin, U., & Mulyaha, S. (2020). HUBUNGAN ANTARA KUALITAS INSTAGRAM DENGAN PEMENUHAN KEBUTUHAN INFORMASI FOLLOWERS @genbibandung. *METAKOM : Jurnal Kajian Komunikasi*, VOL 4(1), Pages 41-57. [http://komunikasi.fisip.unila.ac.id/jurnal/index.php/metakom/article /view/84](http://komunikasi.fisip.unila.ac.id/jurnal/index.php/metakom/article/view/84)
- Mentes, S. A., & Turan, A. H. (2012). Assessing the usability of university websites: An empirical study on Namik Kemal University. *Turkish Online Journal of Educational Technology-TOJET*, 11(3), 61-69.
- Monideepa Tarafdar & Jie Zhang (2008) Determinants of Reach and Loyalty — A Study of Website Performance and Implications for Website Design, *Journal of Computer Information Systems*, 48:2, 16-24, DOI: 10.1080/08874417.2008.11646005
- Mz, Yumarlin. (2016). EVALUASI PENGGUNAAN WEBSITE UNIVERSITAS JANABADRA DENGAN MENGGUNAKAN METODE USABILITY TESTING. *jurnal Informasi interaktif*. Retrieved from <https://www.researchgate.net/publication/319416543> EVALUASI PENGGUNAAN WEBSITE UNIVERSITAS JANABADRA DENGAN MENGGUNAKAN METODE USABILITY TESTING
- Nada, N. Q., & Wibowo, S. (2015). Pengukuran Kualitas Layanan Sistem Informasi Akademik Menggunakan Metode Webqual 4.0. *Jurnal Informatika Upgris*. <https://doi.org/10.26877/JIU.V1I2.DESEMBER.870>
- Nielsen, J. (2000). *Designing web usability: The practice of simplicity*. Indianapolis, IN: New Riders Publishing.
- Ni'mah, K. (2015). OPTIMALISASI PENGGUNAAN WEBSITE SEBAGAI MEDIA PUBLIKASI PENGELOLAAN ZAKAT OLEH LEMBAGA DOMPET DHUFA. Retrieved from <http://digilib.uin-suka.ac.id/16629/>
- Nugroho, T., & Purnomo, D. (2013). MOTIF DAN KEPUASAN MAHASISWA DALAM MENONTON PROGRAM KICK ANDY (Analisa Teori Uses aand Gratifications Pada Mahasiswa FISKOM UKSW). *Cakrawala Jurnal Penelitian Sosial*, 2(1). Retrieved from <https://ejournal.uksw.edu/cakrawala/article/view/41>
- Pitt, L., Watson, R., & Kavan, C. (1995). Service Quality: A Measure of Information Systems Effectiveness. *MIS Quarterly*, 19(2), 173-187. doi:10.2307/249687
- Raharjo, B. P., Muslim, M. A., & Yuni, A. F. (2014). Sistem Informasi Penjualan Berbasis Web pada Stockist Center PT. K-Link Indonesia Cabang Pekalongan. *UNNES Journal of Mathematics*, 3, 76-84.
- Ruggiero, Thomas. (2000). Uses and Gratifications Theory in the 21st Century. *Mass Communication & Society*. 3. 3-37. 10.1207/S15327825MCS0301\_02.
- Sanjaya, I. (2012). Pengukuran Kualitas Layanan Website Kementerian Kominfo dengan Menggunakan Metode Webqual 4.0. *Jurnal Penelitian IPTEK-IKOM*, 14 (1).
- Sasmita, Gian Gusli. (2015). RANCANG BANGUN MEDIA INFORMASI BIS UMUM DI TERMINAL PURWOKERTO BERBASIS ANDROID (A DESIGN OF MEDIA INFORMATION OF BUS IN PURWOKERTO BUS STATION ANDROID BASED). Retrieved from <http://repository.ump.ac.id/id/eprint/5837>

- Setyanto, CF. (2017). *Persepsi Pengguna Terhadap Kualitas Website Perpustakaan Umum Kota Yogyakarta*. Universitas Airlangga. Retrieved from <http://repository.unair.ac.id/68401/>
- Sugiono, S. (2020, September). KONSEPTUALISASI REPUTASI ONLINE: SEBUAH TINJAUAN LITERATUR. *Diakom: Jurnal Media dan Komunikasi*, 3(1), 65-76. <https://jurnaldiakom.kominfo.go.id/index.php/mediakom/article/download/74/32/>
- Supangat, S. (2016). Penggunaan Webqual Untuk Penentuan Tingkat Kebergunaan Pada Website (Studi Kasus Pada Teknik Sipil Untag Surabaya). *Konvergensi*, 11(01), 49–60. <https://doi.org/10.30996/konv.v12i2.1315>
- Sutanto, Y. (2015). Analisis kepuasan pengguna website manajemen informatika dengan metode EUCS berbasis CMS. *Informatika*, 2(1).
- Syaban, et al. (2018). PERANAN PENGGUNAAN WEBSITE SEBAGAI MEDIA INFORMASI DINAS PARIWISATA KABUPATEN HALMAHERA UTARA. Retrieved from <https://ejournal.unsrat.ac.id/index.php/actadiurnakomunikasi/article/view/22012/21713>
- Tarigan, J. (2008). User Satisfaction using WebQual Instrument : A Research on Stock Exchange of Thailand (SET). *Jurnal Akuntansi dan Keuangan*. Vol.10 No. 1:34 – 47.
- Wibisono & Susanto. (2015). Perancangan Website Sebagai Media Informasi Dan Promosi Batik Khas Kabupaten Kulonprogo. *Evolusi*, 3(2), 65.
- Wu, Dezhi and Reyhav, Iris, "Understanding learners' social and psychological needs in a mobile learning environment" (2012). 2012 Proceedings. 8. <http://aisel.aisnet.org/siged2012/8>
- Zhang, Xiaoni & Keeling, Kellie & Pavur, Robert. (2000). Information quality of commercial website home pages: an explorative analysis. 164-175.