CHAPTER 1
INTRODUCTION

1.1. Background of Research

The widening global society causes a higher number of people are trying to change their geographic location to seek an education (Shu, Ahmed, Pickett, Ayman & McAbee, 2020). More and more students choose to go abroad to receive higher education because it is believed that studying in a different country is a worthy investment that enhances learners' foreign language communicative competence and gives precious learning experience (Qun, Syhabuddin, Mulyati & Damaiant, 2018). Also, studying abroad is crucial for personal growth and offers a significant advantage in terms of employment and further career (Nerlich, 2020).

However, Corona Virus Disease 2019 (COVID-19), which was declared a pandemic by the WHO on March 11th, 2020 (WHO, 2020), hugely affected international student mobility (Yu, 2021). Due to the travel restrictions and campus closure, many international students faced difficulties reaching destination countries and studying there (Mok, Xiong, Ke & Cheung, 2020). The pandemic has also affected international students' safety and legal status in the hosting country, the continuity of learning, and the delivery of course material (OECD, 2021).

Border closure, changes in visa processing systems, and student vaccination requirements of each education institution have changed the way of learning – international students have to choose among a few options: a) in-person study, b) deferral to a future semester, c) online enrollment; d) online enrollment until a student can arrive at the institution, h) enrollment at an international branch campus (IIE & IC3, 2021).

COVID-19 pandemic hugely affected Indonesia - increasingly uncertain and rapidly changing situation has affected both the sustainability of business processes (Gaffar, Tjahjono, Abdullah, Sari, & Rofaida, 2022) and education environment. In response to the pandemic situation, the learning policy in Indonesia, as in many other countries, has been changed to an e-learning system, so all students have to study from home (Prestiadi, 2020). COVID-19 in 2020 resulted in the immediate closure of 530,000 schools and a rapid shift to distance learning for 68 million students in Indonesia (UNICEF, 2020). It caused not only the growth of local platforms, such as Harukaedu (a platform offering online university degrees),

Ruangguru (an interactive e-learning platform for K-12 students in Indonesia), and Cakap by Squline (a tutoring platform for language learning) (World Bank, 2020b) but necessity to develop online-learning skills for local and international students.

Influenced by the pandemic situation in the education system, the terms "*e-learning*" and "*e-learning satisfaction*" have gained greater significance. Both these terms had been developed before, but a swift switch to fully online learning has added more details to understanding these definitions (Satar, Dastane & Morshidi, 2021; Maatuk, Elberkawi, Aljawarneh, Rashaideh & Alharbi, 2021).

Elliot Masie defined E-learning as a concept in 1997 as "*…the use of network technology to design, deliver, select, administer, and extend learning.*" (Cross, 2004). As a result of the development of information and communications technologies, E-learning has passed several phases: from E-learning 1.0 to E-learning 2.0 (Downes,2005; Gonella, &Panto, 2008;), which was developed into E-learning 3.0 (Dominic, Francis, & Pilomenraj, 2014), that evolved to E-learning 4.0 (Henning, 2018; Hendradi, Khanapi & Mahfuzah, 2019).

E-learning 4.0 is considered a "*future learning model*", where learning is digital, network-oriented, diverse, constructive, individualized, and adaptive (Hendradi, Khanapi & Mahfuzah, 2019). The assumption that education institutions will switch to e-learning is statistically proven: before the pandemic, the global education technology sector, which includes online learning, was growing at about 15.4% a year (Stub, 2020). However, COVID-19 has pushed this process, and many countries did not have an adequate level of preparation (Mark, 2020; Chang & Fang, 2020).

Indonesia is one of these countries – most Indonesian students and institutions did not have a proper preparation to switch to full-time e-learning, which led to the decline in education quality. (World Bank, 2020a). Another outcome of emergency switching to e-learning is that the fast and complete switch to online learning has imposed vital stress on students and parents (Abumalloh, Asadi, Nilashi, M, & Minaei-Bidgoli, 2021). The uncertain requirements for enrollment, learning mode, and other logistical factors of a students' academic study caused stress and anxiety for many students (Son, Hegde, Smith, Wang & Sasangohar, 2020). This level of stress has affected both local and international students.

The research of Quacquarelli Symonds organization (QS) in 2021 showed that 71% of more than 90,000 interviewed international students from 183 countries indicated increased stress and anxiety due to the COVID-19 outbreak (QS, 2021). Chen, Wu, A.M.S. & Tong (2020) claim that the pandemic can affect international students even more than locals. For international students, who had to stay in the hosting country during the pandemic monetary, informational, language, or cultural barriers can cause deeper psychosocial problems associated COVID-19 and its outcomes and they require additional support to deal with mental problems and one of the most active actor in this situation should be hosting university.

However, the data of QS (Figure 1.1.) shows that most of international students have never accessed support from universities in aspects like mental health, careers, finances, visas, and accommodation, that are usually provided by universities in traditional learning during the COVID-19. The conclusion of this data is reinforced by the researches of Maqableh & Alia (2021) and Milmeister (2020), that claimed that e-learning satisfaction is influenced by mental state of learners and research of Abdul-Rahaman, Terentev & Arkorful (2022) who found out that the quality of learning and university support are one of crucial variables of international students' satisfaction.
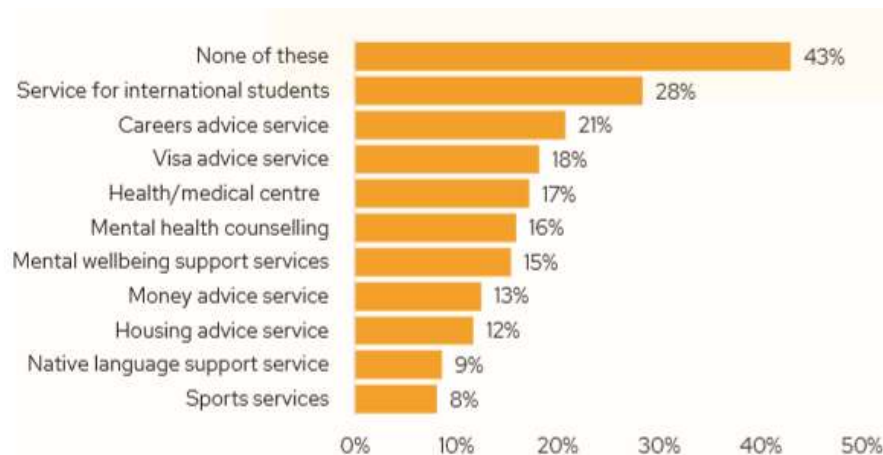
(adopted from QS, 2021)

Figure 1.*1*. Graphic Represents the Percentage of Students Who Have Ever Accessed the Supporting Service from Their Universities

The data proves the fact that there is problem in online learning for international students. Also, it supports the idea that international students as customers should

be examined carefully during the COVID-19. As customers of education institution in different country they have different factors that affect their perspectives.

COVID-19 and its outcomes, such as swift switch to online learning and its mostly negative effect on studying process have given a rise to a number of researches focused on the satisfaction of students with online learning. E-satisfaction has acquired new importance of late, necessitating a fresh look at this field (Almusharraf & Khahro, 2020).

E-satisfaction is becoming incredibly important for universities. Considering higher education as a service (Ng & Forbes, 2009), learning institutions should pay more attention to the factors that lead to students' satisfaction to gain a competitive advantage in the highly competitive education market nowadays (Jameel, Hamdi, Karem, Raewf & Ahmad, 2021). According to Ali, Gaffar, Aedi & Darmawan (2019) from the perspective of marketing management, high level of customer satisfaction is a good advertisement that has a significant influence on the higher education institution' marketing. The competition in the education market of Indonesia is high too, especially when it comes to attracting international students.

The presence of international students is one of the crucial points for country development overall. Students studying abroad contribute to the economy of the hosting country, to cultural aspects, and to the development of country brand on the global stage (Hughes, 2019).
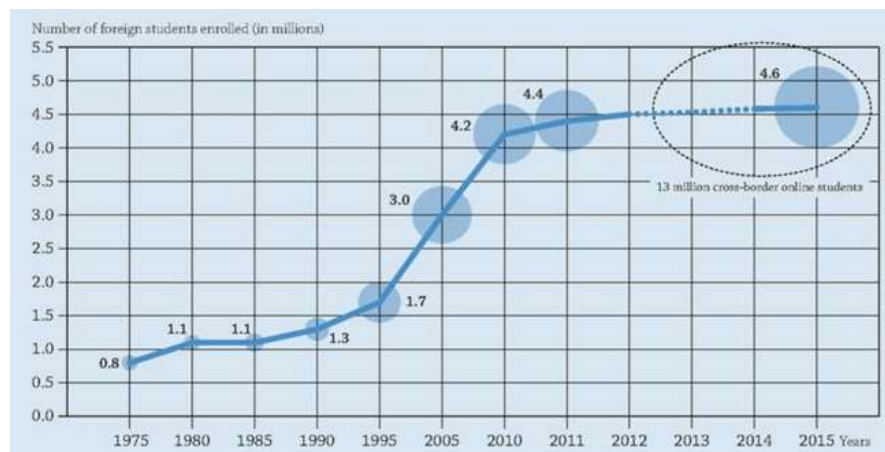
(adopted from OECD, 2017)

Figure 1.*2*. Growth in Foreign Enrolment in Tertiary Education Worldwide 1975 -2015

The number of international students over the world has been rising for a long time (Fig. 1.2) and it is expected to rise to eight million by the year 2025 with an

overall projected global mobility growth rate of 60% in the decade between 2015 and 2020 (OECD, 2017). It means, that international students have already become the vital part of universities around the world and their needs should be examined properly. The conclusion of this data is also supported by the research of van de Velde, Buffel, Bracke, van Hal, Somogyi & Willems (2021), that states the rising importance of international students as a separate group of learners.

The T.I.M.E. Association reports that there were 5,571,402 international students by the year 2018 (T.I.M.E. Association, 2021, April). The report highlights that English-speaking countries such as United States, the United Kingdom, and Australia are the main hosts for international students. However, Non-English-speaking countries such as Germany, Russia and France are also large hosts of international students. Also, other countries such as China, and Turkey posted increases of 85% to 138% over the five years under study (2013-2018). South Korea, Belgium and Argentina have also seen strong growth in the number of students they host (up 20% to 23% in a year) (T.I.M.E. Association, 2021, April).

This rising trend were severely influenced by COVID-19. The pandemic impact can be seen by the decline of 46% among enrolled international students, the massive 64% drop in credit mobility and the smaller drop in degree mobility (-13%) (Kercher, 2021).

However, the rising number of international students before COVID-19 are the reason why Indonesian universities are aimed to fulfill the purpose of the government to lure more international students to study in the country (Global Business Guide Indonesia, 2019). The ability of universities in organizing internationalization programs is used by the Ministry of Research Technology and the Higher Education Republic of Indonesia to measure the competitiveness of universities on the global stage (Hapsari & Hamamah, 2019).

Considering that international students help in the internalization of campus, show cultural diversity, and have a positive influence on the development of teaching and learning methods of hosting university (Sawir, 2013), it is tremendously important for universities to measure satisfaction of international students. Moreover, the understanding of international students' satisfaction might

be crucial in analyzing the current practice of online education and in providing a possible solution for the development of e-learning (Lin & Nguyen, 2021).

Indonesia has different programs for international students: (1) KNB (Beasiswa Kemitraan Negara Berkembang)-prestigious scholarship program offered by the government of the Republic of Indonesia to applicants from developing countries. Since 2008 has been offered to 1,290 recipients from 94 countries (KNB, 2021). (2) Darmasiswa - scholarship program offered to all foreign students from countries that have diplomatic relationships with Indonesia to study Bahasa, art, and culture. This program is organized by the Ministry of Education and Culture (MoEC) in cooperation with the Ministry of Foreign Affairs (MoFA). Since 1974 has been provided to 9110 students from 135 countries (Darmasiswa, 2021). (3) Bahasa Indonesia Bagi Penutur Asing (BIPA)-program aimed to introduce the Indonesian language and culture to foreigners who desire to stay in Indonesia. It has taken place in almost all universities of Indonesia (Gadjah Mada University, University of Indonesia (UI), University of Education of Indonesia (UPI), etc.

In addition, every university has different scholarship programs. For example, UPI offers a Tuition waiver scholarship for undergraduate and graduate students, that covers only tuition fees, excluding personal expenses (Tuition Waiver Scholarship, 2021). In addition, international students can apply to internship programs or summer programs. For instance, in past two years of pandemic, international students had a chance to participate in EASE Online Summer School Program 2022 (EASE Summer School Program 2022, 2022) and Eco Vocational School for Sustainable Development (EVOSD) 2.1 Summer Course Program 2021, that were conducted in an online form.

Due to COVID-19, some of the programs (Darmasiswa) were closed, causing a decrease in the number of international students. Other programs, such as KNB, accepted new students in 2021 (243 students). However, these students had to stay in their countries, taking all classes in online format (KNB Scholarships Selection 2021, 2021). The decline in a number of international students in Indonesia during the pandemic contributes to the problem that with roughly 10,000 international students, Indonesia is still behind some neighboring countries, meaning that

Indonesian universities are not competitive enough in the education market (Usman, 2020). The fact that Indonesia is still not strong enough in comparison with universities abroad ultimately affects the competitiveness of universities (Dirgantari, 2019) which can cause choosing other destinations to study by international students.

The lack of e-learning development amid COVID-19, decreasing number of international students, and negative outcomes of e-learning (Aboagye, Yawson & Appiah, 2021; Kercher, 2021) show that there is a necessity to investigate the factors influencing e-learning as a process to improve the situation in providing education service to international students.

One of this factors, namely decreasing number of international students can be shown on the example of UPI. UPI has been hosting international students for a long time – according to Directorate of International Affairs (DIA) UPI in a period of 2006 -2022 the university has hosted 1973 international students from different countries and currently there are 64 international students in undergraduate, graduate, and postgraduate programs for 2021-2022 academic year. However, according to the Fig. 1.3. it can be seen that the number of international students were rising over the three years in a period of 2017-2019. However, it dropped on 2020-2021 when the pandemic started.

The number of international students at UPI in a period of 2017-2021
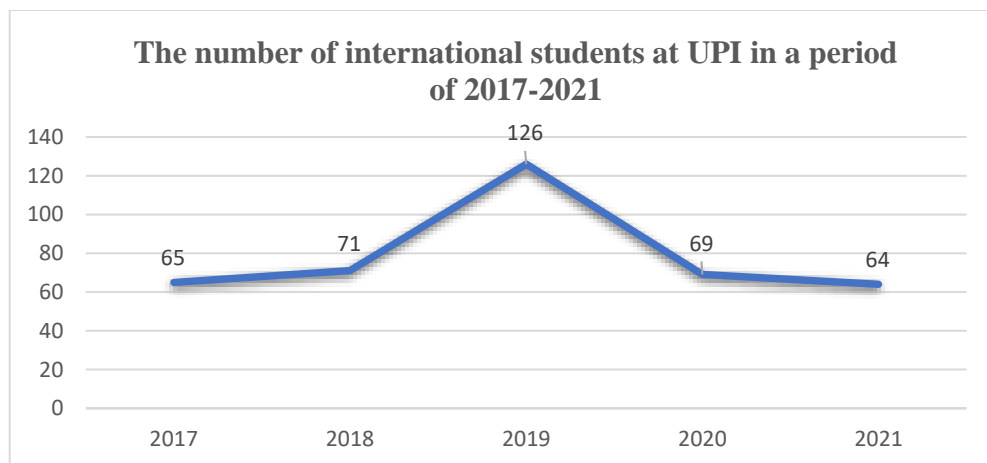
(adopted from Directorate of International Affairs (DIA) UPI, 2022)
Figure 1.*3*. The number of international students at UPI in a period of 2017-2021

Different factors can affect the e-learning process of students. There are number of different researches that examined different aspects of e-satisfaction and its influence on students as customers. Suryan & Sugianingrat (2021) highlighted student e-learning attitude, e-learning quality, and student e-learning satisfaction, which significantly and positively affected student e-learning during the pandemic COVID-19 period, while Aldhahi (2021) identified learning-related self-efficacy, technology-related self-efficacy, and time-management related self-efficacy as the main factors of online learning satisfaction.

Numbers of researchers (Shaid, Kamruzaman & Sulaiman, 2021; Nguyen, 2020) found out that technological characteristics (internet connection, used gadgets, access to materials) of e-learning influences e-learning quality and plays a significant role in the understanding of e-satisfaction. Instructors' Characteristics were highlighted by Baber (2020) and Shaid, Kamruzaman & Sulaiman (2021). They claim that the facilitating of instructor and his knowledge highly affects the e-satisfaction of students. The influence of communication was researched by Abbasi, Ahmed, Sajjad, Alshahrani, Saeed, Sarfaraz, Alhamdan, Vohra & Abduljabbar (2020) and Baber (2020). Pham, Lai, Nguyen & Nguyen (2021) showed three different dimensions of interaction: a) learner-learner interaction; b) learner-instructor interaction, and c) learner – content interaction. Nguyen (2020) has added interaction with administration.

E-learning satisfaction of students was investigated in different academic disciplines and different countries. Baber (2020) has identified determinants of students' perceived learning outcomes and satisfaction in online learning during the COVID-19 in India and South Korea, while Shaid, Kamruzaman & Sulaiman (2021) examined students' satisfaction at the National University of Malaysia. E-learning satisfaction also has been a subject of close examination in Indonesia. Krishnapatria (2020) has learned the student's satisfaction of e-learning in Padjadjaran University in Indonesia, Suryan & Sugianingrat (2021) has built a model of e-learning satisfaction based on data from two private universities in Bali, while Amsal, Putri, Rahadi & Fitri, (2020) had a look into perceived satisfaction and perceived usefulness of e-learning in Andalas University in West Sumatra.

However, all these researches focus only on satisfaction of local students – they do not consider different factors that can affect E-satisfaction of international students. The phenomenon of e-satisfaction of international students in Indonesia has not been learned yet. There is no theoretical model that is aimed to learn the level of e-satisfaction of international students during the COVID – 19 in Indonesia, there are no academic writings that have viewed international students as actors of e-learning in Indonesia.

The novelty of this research leans on these factors – the author aims to learn previous researches about E-learning satisfaction during the COVID-19 and based on the empirical method examine whether the results of previous studies are applicable to international students as customers of education service. This research will provide an important information to Indonesian universities, so they will be aware whether local and international students have similar perspectives on online learning and will be able to establish a proper approach in online learning development.

The empirical gap is shown up by lack of empirical data that allows analyzing the current situation in e-learning of international students and helps to solve the rising problems, that have been described earlier. The review of papers revealed that researchers are mostly focused on local students of a particular country (Jameel, Hamdi, Abdulkarem & Raewf, 2020; Malkawi, Bawaneh & Bawa'aneh, 2021; Nguyen, 2020; Suryan & Sugianingrat, 2021; Shaid, Kamruzaman & Sulaiman, 2021). The findings of these works do not apply to international students in Indonesia.

E- satisfaction as one of the main factors of the e-learning process will be the main focus of this research. Interaction between different actors such as learners, instructors, content, and administration (Pham, Lai, Nguyen, & Nguyen, 2021) will be investigated in terms of influence on e-satisfaction. The author also aims to learn the influence of technological and instructors' characteristics on e-learning satisfaction (Saxena, Baber & Kumar, 2020; Shaid, Kamruzaman & Sulaiman, 2021).

The necessity of this research also has been proven with primary data. The primary data was gathered by author in a form of preliminary survey. The

preliminary survey has been conducted in a form of Google questionnaire in May 2022 in UPI. All 16 participants of survey are international students, currently studying at UPI. All participants have different education and cultural background. According to the results of the survey, students are partially satisfied with online learning (Fig. 1.4.). The survey showed that students have different level of satisfaction regarding different aspects of online learning at UPI. They are satisfied with instructors in online classes and online platforms that has been used during the classes. These results are supported by the research of Abdul-Rahaman, Terentev & Arkorful (2022) – they claim that students were "quite satisfied" or "extremely satisfied" with the quality of teaching and lecturers. However, there is lower level of satisfaction with a process of applying for online courses and communication with lecturer/administration. Also, students have found harder to communicate with their classmates and get involved in a process of learning because of the content and materials of the courses. The conclusion of this data is reinforced by the research of Demuyakor (2020), who stated that international students are highly influenced by the sense of community that communication gives and that they had to face the lack of communication during the COVID-19 period.
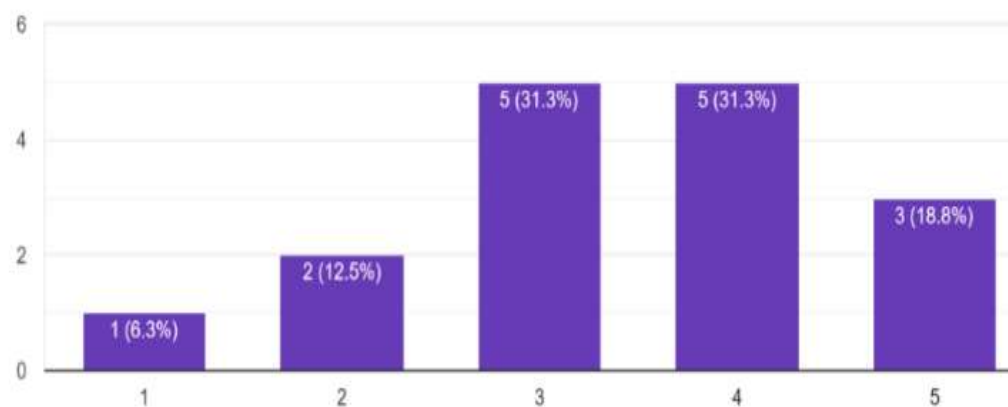
(adopted from International Students E-Learning Satisfaction (preliminary survey), 2022)

 Figure 1.*4*. International Students' Satisfaction with Online Learning at UPI

Participants of the survey have showed following problems regarding online learning in UPI: (1) Language barrier. One of participants said that "My bahasa is not yet strong to interact with locals including my professors", (2) Poor level of communication with lecturers and classmates. Some students found it hard to

understand the materials of the course because of the communication process with professors and other students in the class, (3) The organization of the classes. Some international students had problems with applying for courses and getting schedule of the classes, (4) Limitation of the online classes when it comes to discussion. Students stated that necessity to stay in front of the screen for long time can be tiring. Therefore, the situation when the student participates in class only virtually doesn't feel like studying environment – student has an opportunity to do something else and it can be challenging to fully focus and learn.

The results of preliminary survey showed that international students are partially satisfied with instructors and online platforms. They do have some problems with interaction due to online form of learning and language barrier. The outcomes of this research can help to find solution to these problems.

Based on the background of the research, the authors took a study entitled "International Students' E-Learning Satisfaction during the COVID-19 Pandemic at Universitas Pendidikan Indonesia (Survey on International Students at UPI)".

1.2. Formulation of the problem

Based on what has been stated, the problems in this study are formulated as follows:

1. What is the level of international students' satisfaction with E-Learning at UPI during COVID-19?

2. How does interaction and e-learning quality affect e-satisfaction of international students at UPI during COVID-19?

3. How does interaction affect e-satisfaction of international students at UPI during COVID-19?

4. How does e-learning quality affect e-satisfaction of international students at UPI during COVID-19?

1.3. Objectives of the research

The objective of this research is to find out whether the international students at UPI are satisfied with online learning during the COVID-19 and what factors influence the e-learning satisfaction of international students. The author is focused on the research in UPI based on two factors: 1) UPI has been hosting international students for a long time – according to Directorate of International Affairs (DIA)

UPI in a period of 2006 -2022 the university has hosted 1973 international students from different countries; 2) UPI is hosting university of the author that can be helpful in data gathering.

The purpose of this research is to find out:

1. The level of international students' satisfaction with E-Learning at UPI during COVID-19;

2. The influence of the interaction and e-learning quality on the level of e-satisfaction of international students at UPI;

3. The influence of the interaction of the learner with other actors of e-learning (learners, instructors, content, and administration) on the level of e- satisfaction of international students at UPI;

4. The influence of e-learning quality on the level of e-satisfaction of international students at UPI;

1.4.   Usefulness of research

This research is expected to provide benefits or uses as follows:

1. Theoretical Use

   This research is expected to contribute to the development of marketing science, especially service marketing, regarding the theory of education service, e-learning, e-learning characteristics, and e-satisfaction, which can be used as applications for the development of education service and e-learning quality.

2. Practical Use

   The results of this research can be implemented to:

   a) Further research, that will be focused on e-learning, e-learning characteristics, and e-satisfaction of students;

   b) Activity of international office that is in charge of working with international students;

   c) Activity of administration of university regarding the needs of international students;

   d) Activity of lecturers responsible for providing knowledge to international students.

   e) International and local students interested in e-learning, e-learning characteristics, and e-satisfaction of students.