

**USER SATISFACTION WITH ONLINE EDUCATION PLATFORMS IN
MALAYSIA DURING PANDEMIC**

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA



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MALAYSIA DURING PANDEMIC**

PUTERI BALQIS BINTI DARMAN



A thesis submitted in

fulfillment of the requirement for the award of the

Bachelor's Degree of Technology Management

(Technology Innovation) With Honours

Faculty of Technology Management and Technopreneurship

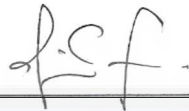
Universiti Teknikal Malaysia Melaka (UTeM)

2023

APPROVAL

I/ We hereby declare that I/ We have read and go through this dissertation/ report/ thesis and certify that, this dissertation/ report/ thesis is satisfactory in the sense of scope and quality as a partial fulfilment of the requirement for the award of Bachelor's Degree of Technology Management (Technology Innovation) with Honours

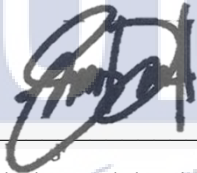
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DECLARATION

I hereby declare that the work in this study is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree.

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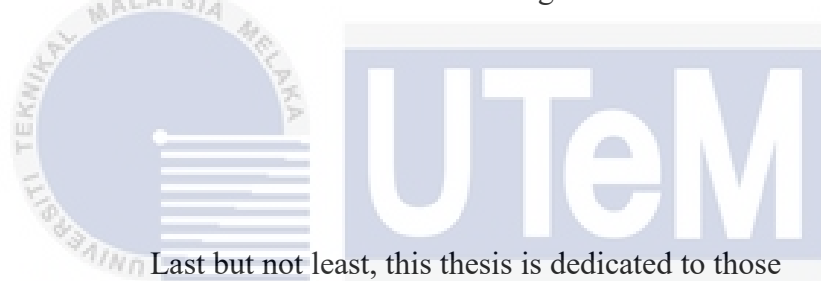


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DEDICATION

This thesis is dedicated to my family,
for the immense support and motivation throughout the whole process.

This thesis is also dedicated to my supervisor
Dr. Atirah Binti Sufian,
who had been a tremendous and wonderful guide and motivator all the way.



Last but not least, this thesis is dedicated to those

who believe in the power of knowledge.
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ACKNOWLEDGEMENT

Bismillahirrahmannirrahim,

In the name of Allah, The Most Gracious, The Most Merciful. Praise to Allah S.W.T who blessed me the strength and dedication to complete this thesis. Peace and prayers be upon His Final Prophet and Messenger Muhammad.

I would want to show my gratitude and appreciation to all those who given me the possibility to complete my thesis. Special gratitude is given to my supervisor Dr. Atirah Binti Sufian whose aid, stimulating suggestions and encouragement helped me in all time of forming process and in producing this thesis. I also truly thanks for the effort spent proofreading and rectifying my faults.

My grateful appreciation go to my colleagues, especially to my pals for spending their time in aiding and giving support anytime I need it in constructing my project. Last but not least, my genuine and deepest thanks goes to the pillars of my strength, which are my family, who have never failed to support and encourage me in all aspects of my life. Without their love, wisdom, and support, I would not have made it this far on my path through life.

Thank you.

ABSTRACT

The outbreak of Corona Virus Disease 2019 (COVID-19) in various countries at the end of last year has transferred traditional face-to-face teaching to online education platforms, which directly affects the quality of education. Taking user satisfaction on online education platforms in Malaysia as the research object, this paper uses a questionnaire survey that distributes through Google Form. The data is collect to get the experience of online and offline users, builds a user satisfaction index system by analyzing emotion and the existing literature for quantitative analysis, and constructs a SPSS statistic software to predict user satisfaction. Data analysis uses descriptive statistical analysis and inferential statistical analysis. Comparing the current study to previous research, previous research has explored the elements influencing student satisfaction within the standard schooling framework. However, the current study was undertaken during the Malaysian shutdown in order to uncover the most influential elements influencing student satisfaction with online classes. (p.44)

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ABSTRAK

Wabak Penyakit Virus Korona 2019 (COVID-19) di pelbagai negara pada akhir tahun lalu telah memindahkan pengajaran bersemuka tradisional ke platform pendidikan dalam talian, yang secara langsung menjejaskan kualiti pendidikan. Mengambil kepuasan pengguna terhadap platform pendidikan dalam talian di Malaysia sebagai objek kajian, kertas kerja ini menggunakan tinjauan soal selidik yang diedarkan melalui Borang Google. Data dikumpul untuk mendapatkan pengalaman pengguna dalam talian dan luar talian, membina sistem indeks kepuasan pengguna dengan menganalisis emosi dan literatur sedia ada untuk analisis kuantitatif, dan membina perisian statistik SPSS untuk meramalkan kepuasan pengguna. Analisis data menggunakan analisis statistik deskriptif dan analisis statistik inferensi. Membandingkan kajian semasa dengan penyelidikan terdahulu, kajian lepas telah meneroka unsur-unsur yang mempengaruhi kepuasan pelajar dalam rangka kerja persekolahan standard. Walau bagaimanapun, kajian semasa telah dijalankan semasa penutupan Malaysia untuk mendedahkan elemen paling berpengaruh yang mempengaruhi kepuasan pelajar dengan kelas dalam talian.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

In this chapter, I will give an explanation about the background of study. A specific problem and research question were created based on research objectives that has been clearly defined in this chapter. Using a questionnaire survey and a web crawler to gather experience data from online and offline users in Malaysia as the study object, this work employs a questionnaire survey and a web crawler to collect data on user satisfaction on online education platforms in Malaysia. The main focus of study and the contribution of this research will also be discussed. The findings of the study will show that online education platform has significant influences on user satisfaction.

1.2 BACKGROUND OF THE STUDY

The online classroom has become an essential means of maintaining normal instructional order because of the advent of the virus. In Malaysia, Zoom, Microsoft Teams, Cisco Webex meetings, and other office meeting software solutions provide online classroom and teaching services. It is necessary to investigate whether these network education platforms can meet the needs of teachers and students, whether network teaching can complete teaching tasks with high quality, whether network education can become an effective means of special period education, and to make recommendations to promote network education development based on the findings of the research.

Scholars from several countries are now conducting research on the evaluation of online education platforms, including the use of an analytic

hierarchy process (AHP) and the partial least square approach to develop an online education platform satisfaction rating system. Traditional approaches, on the other hand, have several flaws in the evaluation process, such as complicated calculations and arbitrary weighting. Furthermore, in the past, the most common kinds of online education were attending public classes at prestigious universities and watching tutorial films produced by organizations. Due to the rapid growth of the Internet, numerous colleges and universities now offer online courses as an alternative to traditional face-to-face training. However, significant concerns and issues have arisen, particularly over the quality of online instruction. Online education, according to Harasim (1989), is a new field of study that integrates remote education with the practise of face-to-face instruction using computer-mediated communication. Ascough (2002) suggested that online education has the following characteristics: (a) it provides a different learning experience than in a traditional classroom because learners are different; (b) communication is via computer and the World Wide Web; (c) learners' participation in classroom is different; (d) the social dynamic of the learning environment is altered; and (e) discrimination and prejudice are minimized (p.1).

This study assesses the online education platform in Malaysia from the perspective of students. To begin, an emotional analysis of online user comments will be performed in order to determine the parameters influencing online education platform satisfaction. Then, on its foundation, a satisfaction evaluation system was created. The structural equation was utilized to calculate the index coefficient, and the back propagation (BP) neural network model was employed to predict online education platform satisfaction.

1.3 PROBLEM STATEMENT

During the epidemic, online education is primarily in the form of class-based teaching by their own school's teachers, which is an extension of the original offline education. Previous research on the satisfaction of online education platforms ignored new aspects introduced by the internet, such as ease of use and interaction quality. As a result, the devices and their software

were not created with educational goals in mind, but they nonetheless make their way into educational environments. Online tools must be subject to educational consideration and good instructional design to best promote student achievement.

Online education is frequently referred to as Internet education, virtual education, cyber-learning, and asynchronous learning (Office of Sustainable Development, 2000). According to Kearsly (2000), the following concepts define online education: collaboration, connectedness, student-centeredness, unboundedness, community, discovery, shared knowledge, multimodal experience, and authenticity (p. 4-10). Internet-enabled online delivery is a type of distributed learning, according to Volery (2000). New technologies, such the Internet, streaming video, and net-meeting, make higher education more accessible and cheap for many students, including many who would have been unable to pursue higher education in a traditional classroom setting (Bianco & Carr-Chellman, 2002).

Human cultures inform resource designers, such as those who create online learning environments (Callahan 2005a; Callahan 2005b; Dormann & Chisalita 2002; van Heerden & van Greunen 2006; Hargittai & Shafer 2006). The surroundings may be most effective if the designers' cultures match with the cultural expectations of the users. The diverse cultures and subcultures that make up human society, on the other hand, do not always easily blend. The likelihood of cultural conflict is increasing in an increasingly globalized society with increasingly different communities of people. This research cautiously treads into this global context.

Even though a recent study found that 80% of course content in higher education institutions is given online (Allen & Seaman, 2003), students in this study were still hesitant to enrol in online courses and grumbled about the online classes they had completed. One participant remarked, "Not only are the courses more expensive, but I felt perpetually lost" (Personal communication, November 11, 2003). Another participant stated, "The online lesson was quite uninteresting, and I did not believe the instructor helped me very much" (Personal communication, November 11,

2003). It seems that many pupils had negative experiences with online education in the past.

Another issue raised in this study is that culture can have a substantial impact on the design and use of online learning environments, and assuming that they are culturally neutral may not meet learners' needs. Online technologies were not created with education in mind. Online learning should follow the same methods in teaching as traditional learning settings. The pupils' cultural origins are one such consideration (Vygotsky 1978). Classrooms' human and social settings are the consequence of classroom participants' interactions. Similarly, online learning environments represent the sum of the interactions of the learners, instructional staff, and all other contributors.

1.4 RESEARCH OBJECTIVES

This study is to aims at addressing the user satisfaction with online education platforms. Two objectives were set up for achieving the goal and to better define which are:

1. To identify what are the factors impacting user satisfaction with online education platforms.
2. To study what is the most significant factor affecting user satisfaction with online education platform.

1.5 RESEARCH QUESTION

Research questions are asked to obtain the appropriate information needed to meet the objectives. The purpose of this research was to determine user satisfaction with online education platforms in Malaysia. The proposed questions to be answered are as follows:

1. What are the factors impacting user satisfaction with online education platforms?
2. What is the most significant factor affecting user satisfaction with online education platforms?

1.6 SCOPE OF STUDY

This research is to study factor impacting user satisfaction with online education in courses that utilize the Internet as the primary instructional delivery method in Malaysia. After that, this study also wants to identify the most significant factor affecting user satisfaction with online education platform. Furthermore, researcher state information about user satisfaction, quality of interaction, quality of service, and platform availability. Researchers believe that these factors have a strong relationship to study about the user satisfaction with online education in Malaysia.

1.7 LIMITATION OF STUDY

Because of the study scope and budget, the type and quantity of data that can be collected will be limited. The research will take the form of a survey that will be sent out to a select sample of students from various Malaysian post-secondary schools. Learners who have already taken courses using online learning technologies will be the responses. Because they may not choose to engage in an online learning course of study, learners who are uncomfortable with online learning may be underrepresented. Another constraint is the use of the Hofstede model (2001; Geert Hofstede et al. 2008b) for cultural factors. The current study assumes that Hofstede's dimensions are correct, and that the scrutiny given to them will amply support the study's assumptions.

1.8 SIGNIFICANCE OF STUDY

The Significance of the study presents the importance of this research. Despite the presence of some obsolete classrooms and practices in teaching, this research has revealed that Padlet, an online form of education, has been shown to be an efficient tool for teaching English as a foreign language to children. It provides a variety of advantages, such as free use, an online presence, compatibility with many devices, and the ability to engage students' creativity and teamwork.

1.9 SUMMARY

In this chapter, it begins with introduction and the background of the study also followed by problem statement, research objective and research question which is main content. Then, it also discusses the scope of study and limitations while doing this research. Lastly, it ended by significant of study that explain about the contribution of this research. In chapter 2 will be elaborated about literature review.



CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is a writing that demonstrates expertise and grasp of academic literature on a certain issue in context. A literature review includes a critical evaluation of the content, therefore it is considered a review instead of a report. Also, in this review we will include the content which is a synopsis or the critic their own evaluation. With literature review we will have a research topic which can help to refine frame research questions.

2.2 USER SATISFACTION

In the literature, satisfaction has long been researched and defined. Because of the unique nature of services, customer satisfaction played an even more significant role. The SERVQUAL and SERVPERF scales, as well as customer satisfaction indices, are all examples of measurement methods. The expectations hypothesis is used to define student satisfaction in higher education. The subjective comparison of students' expectations and experiences is referred to as student satisfaction.

In higher education, there are a variety of ways to measure satisfaction. Customer satisfaction indices designed specifically for higher education are used in quantitative measuring methodologies. In higher education, there have been several variations of the SERVQUAL and SERVPERF scales. Student satisfaction has also been measured using qualitative methods. Aside from in-depth interviews, Critical Incident Technique was applied. Previous research has looked into various elements of foreign students' lives and university studies, but only a few of them have focused on students'

satisfaction with online teaching and the application of innovative approaches. As a result, the purpose of this research is to see if students are content with the increased emphasis on innovative online learning methods.

2.3 QUALITY OF INTERACTION

The key factor determining the sense of interaction experience in terms of interaction quality was feedback for homework supplied by teachers. A lot of research has gone into figuring out what aspects of interaction help with language and cognitive development (e.g. Halliday 1993; Wells 1999; Nystrand et al., 2003; Alexander, 2004; Mercer & Littleton, 2007; Schwarz et al. 2009). Language arts, history, science, and mathematics are all examples of educational context (Boersma et al. 2005, Lampert 1990, Lemke 2001, Mesa & Chang 2010, Sharpe 2008, Zion & Slezak 2005). The degree of specificity in descriptions varies dramatically. The concepts 'thinking,' 'reasoning processes,' and 'growing understanding,' among others, are given more specific definitions.

Considered crucial in determining whether or not students will continue online learning are their connections with teachers and peers online (Brahmasrene & Lee, 2012). We must remember that learning is a social activity and that we learn from and alongside others, even at a distance. Anderson (2003) defines student-to-student interaction as collaborative learning that promotes cognitive learning gains as well as the development of social skills. Furthermore, a sense of community and social presence has been widely acknowledged as a factor in improving the quality of learning and the motivation to study (Salmi, 2013). The experiences of students' online interactions with their lecturers and other students are revealed to be crucial determinants of their intent to continue online learning (Zhu, Zhang, Au, & Yates, 2020).

Equally crucial is the teacher's presence in online activities: this cannot be reduced to how the teacher speaks to the camera during videoconference sessions, but rather if he or she can provide quick and

accurate response on questions and as evaluations. There are more options to focus on the review of individual work and to provide personalised comments with online learning (Rapanta et al., 2020).

2.4 QUALITY OF SERVICE

The impact of service quality on user satisfaction was mostly driven by issues like rapid problem resolution, a variety of course types, and learning extension. Researchers have attempted to identify universal quality parameters, especially in the context of services. Parasuraman et al. (1985) and Zeithaml et al. (1986) presented the most well-known set of dimensions (1996). Service quality has been divided by some studies into two major categories: technical and functional (Gronroos, 1984; Parasuraman et al., 1985, 1988, 1991; Lewis, 1989). So that, there is considerable debate in the literature (Cronin and Taylor, 1992, 1994; Teas, 1993, 1994; Parasuraman et al., 1994) about how to best conceptualize and operationalize the service quality construct, as well as the relationship between and relative importance of the key variables that relate to it (Cronin and Taylor, 1992, 1994; Teas, 1993, 1994; Parasuraman et al., 1994). Many people still regard the service quality construct as unsettled (Caruana et al., 2000) and/or inconclusive (Athanasopoulos, 2000).

2.5 PLATFORM AVAILABILITY

Platform suitability, platform service type, platform privacy, platform teaching type, platform functionality, platform design environment, and network technology environment are some of the contributing elements that influence user experience. Thor et al (2017) evaluated the impact of the online format on the discussion quality and the survey findings showed that students preferred using Voice Thread for presenting, learning from other presentations, and debating presentation content by conducting this procedure in the classroom.

Botelho et al (2019), analyzed the usefulness, convenience of use, ease of learning and satisfaction of a cloud-based clinical progression practice record when compared to a standard paper practice record. The platform's design environment should be more concise and simple to use, and new modes for different users at different times should be designed. Students' eyesight may benefit from a "dark mode" at night, for example. It is vital to increase the development of each tablet port to increase the platform's utilization. Furthermore, the platform should be able to change the horizontal and vertical displays at any point throughout an online session to make students more comfortable.

2.6 CONCEPTUAL RESEARCH FRAMEWORK

Achievement goal theory (AGT) was proposed by four scholars Carole Ames, Carol Dweck, Martin Maehr, and John Nicholls in the late 1970s and is widely used to understand student performance (Elliot, 2005). ("Impact of online classes on the satisfaction and performance of ...") "Achievement goals involve a programmed of cognitive processes that have cognitive, affective, and behavioral consequences," according to Elliott and Dweck (1988, p11). Dweck & Leggett, 1988; Ames, 1992; Urda, 1997) propose that the purpose and reasons students adopt while engaged in learning activities can easily explain their motivation and achievement-related behaviours (Dweck & Leggett, 1988; Ames, 1992; Urda, 1997). According to some research, there are four ways to attain a goal: mastery approach, mastery avoidance, performance approach, and performance avoidance (Pintrich, 1999; Elliot & McGregor, 2001; Schwinger & Stiensmeier-Pelster, 2011, Hansen & Ringdal, 2018; Mouratidis et al., 2018). Students' performance is influenced by their surroundings (Ames & Archer, 1988).

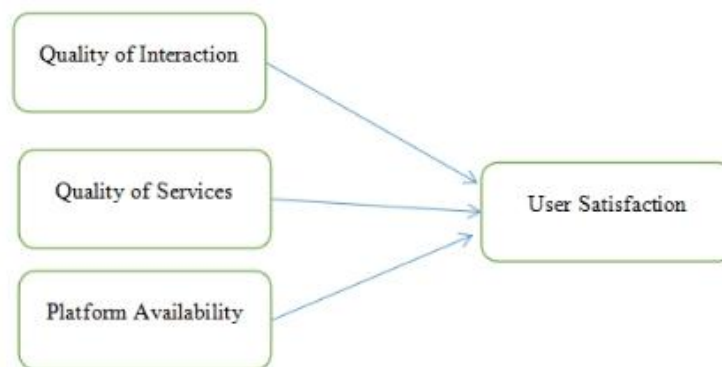


Figure 1 : Conceptual Research framework of user satisfaction with online education during Pandemic

2.7 HYPOTHESIS DEVELOPMENT

From conceptual framework, hypothesis can be constructed. Besides that, below are the hypothesis for this research:

Hypothesis 1 : The interactive quality of the online teaching platform has a significantly positive influence on user satisfaction.

Hypothesis 2 : The service quality of the online teaching platform has a significantly positive influence on user satisfaction.

Hypothesis 3 : The availability of the online teaching platform has a significantly positive influence on user satisfaction.

2.8 SUMMARY

In this chapter, the researcher finds the related topics and explains briefly about the meaning of quality of interaction, quality of services, platform availability, and follow by user satisfaction. Furthermore, all the studies used in this chapter have provided better insights and understanding of user satisfaction with online education platforms by giving this study a clearer direction. The methods used in this study will be discussed in chapter 3.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter outlined the research methods applied in this research. This chapter discusses the research strategy, methodology choices, primary and secondary sources, and location research. This chapter will also explain the research approach, time horizon and questionnaire design.

3.2 RESEARCH DESIGN

A descriptive research design was utilized for this investigation. The variables quality of interaction, quality of services, and availability of the platform were all independent. The satisfaction of the students was the dependent variable in this study. Design research is pragmatic that it gives a solution to a real-world educational problem such as teaching terminology and adds to educational theory in the form of design principles that can be applied by educational practitioners (Brown, 1992, p. 143; Collins, 1992, p. 15). (Brown, 1992, p. 143; Collins, 1992, p. 15). Depending on the environment in which it is being utilized, design research may also be known as design studies, design experiments, development/developmental research, formative research, formative evaluation, or engineering research (van den Akker, Gravemeijer, McKenney, & Nieveen, 2006, p. 4). (van den Akker, Gravemeijer, McKenney, & Nieveen, 2006, p. 4).

Since design research is designed to both solve a real world problem and to produce re-usable design principles, it is well suited to help establish design theories for mobile learning. There are various techniques to design research that all of which begin with a theory collection or literature review phase and end with a reflection on both the design solution and the design

research process. The middle phase of the process is the iterative cycles of analysis, design, development, and execution of varied among the different techniques.

3.3 METHODOLOGY CHOICE

Utilizing a survey as the research approach. Students were sent online questionnaires to complete the survey. The participants in this study were all undergraduate students enrolled in active programme. This research employed a random sampling strategy, which is a random data collection method. The questionnaire used in this study is a data collecting method that consists of administering a set of questions or written statements to respondents who were selected as the research sample in order to get information from respondents that is certainly relevant to this research. The questionnaire utilized is a closed questionnaire in which all possible responses have been listed so that the respondent need only select one of the suitable responses.

3.4 PRIMARY DATA SOURCE AND SECONDARY DATA SOURCE

The collecting of data is of utmost importance for statistical analysis. There are a variety of information-gathering techniques used in research, which all fall into one of two categories: primary and secondary data (Douglas, 2015). As the names indicate, primary data refers to data which is obtained for the first time and by the researcher himself while secondary data refers to the data that has already been collected or created by others (Ajayi, 2017). Sources of primary data include surveys, observations, experiments, questionnaires, and personal interviews, whereas sources of secondary data include government publications, websites, books, journal articles, and internal records. Primary and secondary data sources are cited as data sources for this study.

Primary Sources : Internal reports and data on user satisfaction with online education platforms in Malaysia serve as the primary sources of information.