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PERCEPTION AND SATISFACTION AMONG OPEN AND DISTANCE LEARNING STUDENTS IN UNIVERSITI TEKNOLOGI MALAYSIA

Abstract. In Universiti Teknologi Malaysia (UTM), the Open and Distance Learning (ODL) programme has been around quite recently and many things need to be discovered to improve it. The programme is running well and was already offered before the pandemic outbreak. However, a continuous evaluation is necessary to optimise both students' learning and the quality of the education programme. The success of ODL programme could be affected by how it is viewed by the students involved in it and how satisfied they are with the overall learning experience. Therefore, this research was conducted quantitatively based on a survey research design, which aimed to identify students' perception of and satisfaction with the ODL programme. The instrument used in this research is questionnaire with items adopted and modified from previous studies. Additionally, two educational technology lecturers with two-year experience in teaching the ODL programme were selected to validate the instrument. In this programme particularly, students were fully working adults with various backgrounds among them, ranging from local to international. A total of 107 students responded to the questionnaire and the data were analysed by using descriptive statistics. From the analysis, it was found that most students had a very positive perception and were highly satisfied with the ODL programme. It is hoped that the findings would be insightful for UTM, especially for the School of Education as a service provider, in taking professional consideration to improve the quality of the mentioned programme. Furthermore, these findings will provide useful insights for ODL lecturers in refining their teaching quality.

Keywords: Perception; Satisfaction; Open and Distance Learning; ODL; Online Learning.

1. INTRODUCTION

Open and Distance Learning (ODL) is an alternative study mode, which is commonly offered in higher education institutions. It creates an opportunity for those who need to attend university as full-time students on campus. Regardless of COVID-19 pandemic and sudden transition into online learning, ODL has already been known and long seen as an alternative mode of study in higher education institutions. Most universities in Malaysia recognise the value of ODL and ensure its students, who are professionals with families and full-time jobs, may continue their studies. Obtaining an online Master's Degree is one of the best opportunities available nowadays.

ODL emerged from the evolution of online learning. Due to its massive popularity, Massive Open Online Courses (MOOCs) came into existence as a form of organisation and delivery of teaching and educational resources [1]. In Malaysia, Taylor's University was the first institution to launch MOOCs back in 2013, which were hosted by OpenLearning [2]. MOOCs commonly serve as a sampler for full university programmes. Other than that, they provide an opportunity for the public to try out non-formal and informal courses as part of the

lifelong learning initiatives. Additionally, fulltime students who participated in MOOCs are eligible for credit transfer after completing a particular course.

Online learning has opened up a more comprehensive opportunity for the accessibility and outreach of education, as well as cost and time savings in terms of traveling, minimising gaps, and making education more inclusive. Interestingly, prior to the pandemic and the push factor of the Movement Control Order (MCO) in Malaysia, the Faculty of Social Sciences & Humanities (FSSH) had already accomplished its mission to adapt its academic staff towards the use of online learning in teaching and learning [3]. This is a significant response to the National e-Learning Policy (DePAN), which aimed to widen the use of online learning in higher education. Consequently, the implementation of a full online learning mode during MCO was much easier and faster.

Back in 2019, the School of Education was among the first schools in Universiti Teknologi Malaysia (UTM) to offer ODL as a mode of study [3]. UTM offered three Master's Degrees in ODL mode; Educational Technology, Business Administration, and Forensic Engineering (<https://odl.utm.my/program/>). These are offered locally and globally for those who are seeking flexible learning. However, it is important to note that these particular ODL courses are not the same as other full-time courses which were forced to adapt online learning. Approaching the end of year 2022, UTM was preparing to offer even more ODL programmes.

There is always room for improvement regardless of how long a particular course has existed. ODL programme should be designed to make the course relevant to the professionals despite the challenges such as geographical and technological infrastructure limitations in remote areas [4]. Due to the fact that ODL courses at UTM are relatively new, it is crucial to evaluate the programme in order to be aware of its effectiveness and obtain constructive feedback about the programme. This can be done via course evaluation, which is aimed at obtaining students' feedback regarding courses and teaching for improvement purposes, and at providing a defined and practical process to ensure that actions are taken to improve courses and teaching [5].

Perception is how people sense and interpret the world around them [6]. Different people perceive the advantages of ODL differently, and their perceptions have influenced attitudes towards the acceptance and the use of ODL in education system [7]. The success of an ODL system could be affected by how it is viewed by the students involved in it. If they could share how they perceive the educational environment of a particular course, the university would be able to do necessary adjustment for the betterment of that course.

Meanwhile, satisfaction is defined as an expression of the fulfilment of an expected outcome that is influenced by prior expectations on a level of quality [8]. On the other hand, students' satisfaction can be defined as a subjective evaluation of educational outcomes and experience [9]. Their satisfaction and learning experience are driven by the overall content, characteristics, and quality of the selected course. Students' satisfaction is a strong predictor of academic performance [10], and therefore it is necessary for an institution to identify such factors in order to serve their clients better.

Students are the main customer in the university and the closest customers that feel satisfaction and dissatisfaction with what they receive from the institution. They usually assess programme value using criteria which are consistent with their future professional goals and personal growth expectations. It is critical to understand students' needs and wants thoroughly to decide on how to satisfy and retain them [11]. Furthermore, their satisfaction is important for measuring the success of an information system [12].

The problem statement. In Universiti Teknologi Malaysia, Open and Distance Learning (ODL) programmes have been around quite recently and many things need to be discovered in order to improve them [13]. The programmes were established before the COVID-19 pandemic

outbreak and are still operating well to this day. However, a continuous evaluation is necessary to improve the quality of the education programme and students' learning [14].

Messo [7] mentioned that different people perceive the advantages of ODL differently, and their perceptions have influenced attitudes towards the acceptance and the use of ODL in an education system. Past studies have reported that some students faced technical issues, lack of technology skills, as well as difficulty working in a group. That said, it is crucial to take note of students' perception of their educational setting because it can be a basis for implementing modifications and thus optimising their educational environment [15]. Therefore, students' perception will be evaluated within these six components: quality, opportunity, relevance, development, support, and challenges.

Moreover, students are the main customer in a university. It is important to note that their satisfaction is a strong predictor of academic performance [10], and a significant aspect of being successful in promoting higher education [16]. On that account, students' satisfaction will be assessed under these four components: learning materials, lecturers, course assessment matters, and overall programme structure. It is necessary for an institution to identify such factors in order to serve its clients better, continuously.

To conclude, to further improve and provide high quality ODL programmes in UTM, this research study proposes to attain two main objectives specified in the research goal. Additionally, this research also attempts to fill the gap and overcome limitations mentioned in the previous study by Razami *et al.* [17], namely, such that future research may study students' perception and factors that influence their satisfaction with distance learning. It is hoped that the findings of this research will benefit the faculty in taking action to revise and improve its programme accordingly, and to sustain quality service.

Analysis of recent studies and publications. A recent study by Maijo [18] explored the learners' perception and preference on the Open and Distance Learning mode (ODL), at the Institute of Adult Education in Tanzania through the case study design. The sample comprised 50 students selected through simple random sampling technique. The findings showed that majority of the respondents expressed a positive perception of the ODL. The participants were impressed by the quality of the modules, examination procedures, and the support services provided. The researcher suggested that the learners' perception of the ODL should be taken seriously by developing an appropriate approach to enhance the programme and address the challenges associated with distance learning.

Due to the COVID-19 pandemic, universities had to adopt online learning. Students and fellow educators from fulltime courses had to experience the nature of ODL without a proper planning and readiness. In the local context, Ismail *et al.* [19] studied students' perception towards ODL during the pandemic. The study was conducted at Universiti Teknologi MARA (UiTM), with 265 diploma students from various programmes in the Faculty of Health Science. The result showed that the students had problems connecting with their lecturers and friends because of limited time and connection problems. Although online learning provides high accessibility to information, only a few students could be involved effectively. The researchers also noted that majority of the students would like to return to campus because of the need for hands-on techniques and practices.

Face-to-face learning is necessary, especially when it comes to hands-on and practical skills in real-time situations, such as medical-related fields. Ahmed *et al.* [20] also found that the students preferred face-to-face learning. In this particular study, a survey about online learning was distributed to 50 pharmacy students. The findings showed that pharmacy students showed some interest in online learning methods, but majority of them still preferred face-to-face lecture style instead. The researchers also noted that 50% of the students preferred to attend pharmacy curriculum courses by both traditional in-class and blended online learning.

As for non-medical courses, a recent study by Upadhayaya *et al.* [4] in Nepal explored the perception of postgraduate students towards ODL during the COVID-19 pandemic. An online survey consisting of six major components was distributed to 71 postgraduate students of science education. These components were quality, opportunity, relevance, development, support, and challenges. Their findings showed that the participants' hometown location greatly affected their perception towards the quality of ODL.

Similarly in Jordan, Almahasees *et al.* [21] did a survey to identify both the faculty's and students' perceptions of online learning during the pandemic. 50 faculty members and 280 students were selected randomly to explore the effectiveness, challenges, and advantages of online learning. The study found that online learning was less effective than face-to-face learning and teaching. Both sides indicated that online learning had challenges in terms of adaption, especially for students with disability. Other challenges such as lack of interaction and motivation, technical and internet issues were reported. On the positive side, they agreed that online learning was about self-learning, low costs, convenience, and flexibility. Although both faculty and students agreed that online education was useful during the pandemic, it could not substitute the face-to-face learning.

As for students' satisfaction with ODL, in a local setting, Kamarulzaman and Siew [22] conducted a study at Open University Malaysia (OUM) to evaluate one of the ODL programmes offered. According to the researchers, the programme has been around for more than a decade; thus, evaluations need to be carried out. The researchers assessed students' satisfaction with the programme under four different areas: learning materials, lecturers, assessment, and overall programme structure. A total of 439 students participated in the study and the result showed that the students were mostly satisfied with the overall programme structure but somehow least satisfied with the assessment matters. This particular finding supported a study by Ngara *et al.* [23] at Zimbabwe Open University, which also found that students were unsatisfied with the assessment method in the ODL programme.

Another study based on local context by Rajadurai *et al.* [24] aimed to identify learners' satisfaction and academic performance in an online learning environment at the ODL universities in Malaysia. This particular study can be considered as a big study due to large number of samples. A total number of 2283 valid questionnaires were completed by three batches of undergraduates. The analysis suggested that learners were satisfied with their usage of learning materials, assessment management, academic facilitation and the services provided by the universities. However, only assessment management and services offered by the universities were found to be negatively significant in relation to learners' performance.

Similarly in Nigeria, Itasanmi [25] studied the determinants of learners' satisfaction in ODL programmes. A sample size of 719 students was randomly selected from three purposively selected ODL institutions in Southwestern Nigeria. The results revealed that there was a significant relationship between teaching and learning experience, educational resources, technical support and infrastructure, and general satisfaction of students in ODL programmes. Furthermore, the researcher also found that demographic variables such as age, gender, and school could significantly predict students' general satisfaction in ODL programmes.

Meanwhile, in Ghana, Agbanu and Ahiase [26] identified the factors influencing students' satisfaction in distance education programmes at the University of Education. The study involved 309 students from an ODL programme. The study found that administrative support services, course evaluation, the instructor's performance, and student-instructor interactions significantly contributed to students' satisfaction. Researchers also noted that most students expressed satisfaction with the ODL programme.

The research goal. This research was conducted quantitatively based on a survey research design aimed to identify students' perception of and satisfaction with ODL programme. There were two goals to be specific:

- 1) To identify students' perception towards ODL programme in terms of quality, opportunity, relevancy, professional development, student support, and challenges.
- 2) To identify students' satisfaction with ODL programme in terms of learning materials, lecturers, assessment, and overall programme structure.

2. RESEARCH METHODS

2.1. Population and Sample

In terms of population, 107 students from the Master in Educational Technology, Open and Distance Learning (ODL) programme from the School of Education, Faculty of Social Sciences and Humanities were selected purposively for this research. In this programme particularly, students were fully working adults with various backgrounds, ranging from local to international. Furthermore, this group of students was the one who enrolled and experienced the true setting of the ODL programme.

2.2. Research Instrument

Questionnaire is the only instrument used in this research. Items were adopted from previous studies made by Upadhayaya *et al.* [4] and Kamarulzaman and Siew [22] respectively. There are three sections in total. Section A is about *Students Demography*, which acquired students' background details such as nationality, gender, age, and working status. Section B is about *Students' Perception towards Open and Distance Learning (ODL)* developed by Upadhayaya *et al.* [4]. The third section – Section C is *Students' Satisfaction with ODL*, which was adopted from a study by Kamarulzaman and Siew [22]. For both Section B and Section C, 5-point Likert scale was used ranging from 'Very Disagree (VD)' to 'Very Agree (VA)'.

Other than that, two educational technology lecturers with two-year experience in teaching the ODL programme were selected to validate the instrument. The finalised version of the instrument was compiled and made by using Google Forms. Afterwards, several alumni of the ODL programme were selected mainly for the pilot test. These samples were an entirely different group from the one selected for data collection. Overall, the finalised instrument of this study had scores of 0.816 in the reliability test, which indicated good reliability; thus, it can be used in the actual study.

2.3. Data Analysis

For the method of analysis, descriptive statistics helped the researcher describe responses to each question in a database and determined the overall trends and data distribution. Table 1 shows the main guideline for how each means in the Likert scale should be interpreted, as proposed by Pimentel [27].

Table 1

Mean Score Interpretation [27]

| Mean Scores | Interpretation |
|-------------|----------------|
| 1.00-1.79 | Very Low |
| 1.80-2.59 | Low |
| 2.60-3.39 | Moderate |
| 3.40-4.19 | High |
| 4.20-5.00 | Very High |

3. THE RESULTS AND DISCUSSION

3.1. Results

A total of 107 participants had responded to the questionnaires that were constructed utilising Google Forms. Students' perception and students' satisfaction were analysed by using descriptive statistics, such as mean and percentage.

3.1.1. Students' Demography

The students' demography section is divided into four criteria; nationality, gender, age, and working status. In total, 107 students participated in data collection. All these students came from different backgrounds and even from different nationalities. The following Table 2 summarised the demography distribution based on frequency and percentage.

Table 2

Students' Demography

| Background | Total no. | Percentage (%) |
|--------------------|-----------|----------------|
| Nationality | | |
| Malaysian | 105 | 98.1 |
| Other | 2 | 1.9 |
| Gender | | |
| Male | 30 | 28.0 |
| Female | 77 | 72.0 |
| Age | | |
| Below 30 years old | 33 | 30.8 |
| 31 - 40 years old | 45 | 42.1 |
| 41 - 50 years old | 25 | 23.4 |
| Over 50 years old | 4 | 3.7 |
| Working | | |
| Yes | 107 | 100.0 |
| No | 0 | 0.0 |

Based on Table 2 above, most of the students were local. There were 105 Malaysian students (98.1%) and only two international students (1.9%), who came from the United States and Singapore. Secondly, the majority of the students were female, with a total number of 77 (72.0%) out of 107 students. In terms of age, 33 students (30.8%) were below 30 years old, 45 students (42.1%) were around 31-40 years old, and 25 students (23.4%) were around 41-50 years old. Meanwhile, the oldest group, which were over 50 years old, only consisted of 4 students (3.7%). In terms of working status, it was found that all students had their own occupation. Also, it is worth mentioning that most of these students worked in the education sector. Other occupations included officer in the government sector, engineers, freelancers, and many more.

3.1.2 Students' Perception towards Open and Distance Learning

This section consists of six sub-constructs or 34 items as a whole. This section aimed to identify students' perception towards Open and Distance Learning (ODL). Table 3 presents data distribution utilising descriptive statistics. The mean interpretation below is according to Pimentel [27], which can be referred to Table 1.

Table 3

Students' Perception toward Open and Distance Learning

| Factor 1: Quality of ODL | | | | | | | | |
|------------------------------|--|--------------------------|-------------|--------------|-------------|--------------|------|---------------------|
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | The quality of assessment in ODL is better than traditional face-to-face on-campus assessment. | - | 1 | 10 | 43 | 53 | 4.38 | Very High |
| | | - | .9 | 9.3 | 40.2 | 49.5 | | |
| 2 | The quality of assignments in ODL is better than in traditional face-to-face on-campus learning. | - | 1 | 12 | 44 | 50 | 4.34 | Very High |
| | | - | .9 | 11.2 | 41.1 | 46.7 | | |
| 3 | The quality of learning in ODL is better than in traditional face-to-face on-campus learning. | - | 3 | 15 | 41 | 48 | 4.25 | Very High |
| | | - | 2.8 | 14.0 | 38.3 | 44.9 | | |
| 4 | The classes in virtual online mode are as effective as the face-to-face mode classes in terms of quality. | 1 | - | 14 | 36 | 56 | 4.36 | Very High |
| | | .9 | - | 13.1 | 33.6 | 52.3 | | |
| 5 | The lecturers are well-trained to teach in ODL programme. | - | - | 8 | 25 | 74 | 4.62 | Very High |
| | | - | - | 7.5 | 23.4 | 69.2 | | |
| 6 | The lecturers encourage students to integrate the use of ICT in learning. | - | - | 1 | 24 | 82 | 4.76 | Very High |
| | | - | - | .9 | 22.4 | 76.6 | | |
| Factor 2: Opportunity in ODL | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | Online classes are comfortable for me as I have an opportunity to study from my own place. | - | - | 2 | 13 | 92 | 4.84 | Very High |
| | | - | - | 1.9 | 12.1 | 86.0 | | |
| 2 | The curriculum has been designed in a way that I have an opportunity to organize activities in the online mode delivery structure. | - | - | 5 | 29 | 73 | 4.64 | Very High |
| | | - | - | 4.7 | 27.1 | 68.2 | | |
| 3 | The ODL classes create interactive environment for | - | - | 4 | 36 | 67 | 4.59 | Very High |

| | both lecturers and students with an opportunity to interact with each other. | - | - | 3.7 | 33.6 | 62.6 | | |
|-----------------------------------|--|--------------------------|-------------|--------------|-------------|--------------|------|---------------------|
| 4 | The current curriculum implemented in ODL provides me with an opportunity of higher education through distance learning. | - | - | 1 | 20 | 86 | 4.79 | Very High |
| | | - | - | .9 | 18.7 | 80.4 | | |
| 5 | I feel that ODL has provided me with a good learning experience and opportunity for flexible learning time and place. | - | - | 1 | 21 | 85 | 4.79 | Very High |
| | | - | - | .9 | 19.6 | 79.4 | | |
| 6 | Through ODL, I have found a greater opportunity of distance learning amid COVID-19 pandemic. | - | - | - | 14 | 93 | 4.87 | Very High |
| | | - | - | - | 13.1 | 86.9 | | |
| Factor 3: Relevancy of ODL | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | I feel that the ODL programme is a relevant way of gaining higher education in Malaysia. | - | - | 2 | 19 | 86 | 4.79 | Very High |
| | | - | - | 1.9 | 17.8 | 80.4 | | |
| 2 | The use of ICT tools in ODL learning is relevant in my study. | - | - | 1 | 22 | 84 | 4.78 | Very High |
| | | - | - | .9 | 20.6 | 78.5 | | |
| 3 | The use of ICT tools in ODL learning motivates me in my study. | - | 1 | 1 | 27 | 78 | 4.70 | Very High |
| | | - | .9 | .9 | 25.2 | 72.9 | | |
| 4 | The ODL classes are effectively conducted on time by using relevant online technology (Ex: Webex, ODL System) | - | - | 3 | 16 | 88 | 4.79 | Very High |
| | | - | - | 2.8 | 15.0 | 82.2 | | |
| 5 | The ODL teaching model helps students to analyse and solve relevant problems related to delivery of the lessons. | - | - | 4 | 38 | 65 | 4.57 | Very High |
| | | - | - | 3.7 | 35.5 | 60.7 | | |
| 6 | The ODL programme is relevant in my professional development aimed at becoming a competent worker. | - | 1 | 1 | 30 | 75 | 4.67 | Very High |
| | | - | .9 | .9 | 28.0 | 70.1 | | |
| 7 | The ODL programme is relevant to my profession because it provides me | 1 | - | 2 | 19 | 85 | 4.75 | Very High |

| | with an opportunity to get access to higher education while working full-time. | .9 | - | 1.9 | 17.8 | 79.4 | | |
|---|---|--------------------------|-------------|--------------|-------------|--------------|------|---------------------|
| Factor 4: Professional Development | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | The knowledge obtained from ODL programme helps me to increase the quality of my education. | - | - | 1 | 21 | 85 | 4.79 | Very High |
| | | - | - | .9 | 19.6 | 79.4 | | |
| 2 | The ODL teaching techniques encourage independent learning and develop my skills. | - | - | 3 | 23 | 81 | 4.73 | Very High |
| | | - | - | 2.8 | 21.5 | 75.7 | | |
| 3 | There is sufficient interaction between lecturers and students during online classes to increase my communication skills. | - | 1 | 8 | 33 | 65 | 4.51 | Very High |
| | | - | .9 | 7.5 | 30.8 | 60.7 | | |
| 4 | There is sufficient interaction among the students during online classes to increase my social skills. | - | - | 13 | 33 | 61 | 4.45 | Very High |
| | | - | - | 12.1 | 30.8 | 57.0 | | |
| Factor 5: Student Support in ODL | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | In the <i>ODL System</i> , its structure of delivery supports students' learning. | - | - | 3 | 36 | 68 | 4.61 | Very High |
| | | - | - | 2.8 | 33.6 | 63.6 | | |
| 2 | There is sufficient availability of the learning resources for ODL students in UTM. | - | - | 2 | 35 | 70 | 4.64 | Very High |
| | | - | - | 1.9 | 32.7 | 65.4 | | |
| 3 | The online learning platform is sufficient for teaching and learning process. (E.g.: ODL System, Cisco Webex, etc.) | - | - | 2 | 32 | 73 | 4.66 | Very High |
| | | - | - | 1.9 | 29.9 | 68.2 | | |
| 4 | The courses / subjects in ODL programme are clear in their objectives, course requirements, and grading systems. | - | - | 3 | 31 | 73 | 4.65 | Very High |
| | | - | - | 2.8 | 29.0 | 68.2 | | |

| 5 | The ODL lecturers provide sufficient learning materials for my study. | - | - | 4 | 31 | 72 | 4.64 | Very High |
|--|---|--------------------------|-------------|--------------|-------------|--------------|-------------|---------------------|
| | | - | - | 3.7 | 29.0 | 67.3 | | |
| Factor 6: Challenges with ODL | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | ICT-related skills among ODL lecturers are the major challenges in maintaining a good online teaching and learning. | 3 | 8 | 11 | 36 | 49 | 4.12 | High |
| | | 2.8 | 7.5 | 10.3 | 33.6 | 45.8 | | |
| 2 | Technical competency of lecturers is the major challenge of teaching ODL programme. | 4 | 8 | 15 | 30 | 50 | 4.07 | High |
| | | 3.7 | 7.5 | 14.0 | 28.0 | 46.7 | | |
| 3 | Pedagogical competency of lecturers is the major challenge of teaching ODL programme. | 7 | 5 | 11 | 37 | 47 | 4.05 | High |
| | | 6.5 | 4.7 | 10.3 | 34.6 | 43.9 | | |
| 4 | The lack of ICT knowledge among the students is a difficulty in ODL programme. | 3 | 6 | 21 | 33 | 44 | 4.02 | High |
| | | 2.8 | 5.6 | 19.6 | 30.8 | 41.1 | | |
| 5 | The lack of ICT integration in ODL curriculum is a challenge for lecturers to adapt in the virtual classes. | 6 | 9 | 19 | 39 | 34 | 3.80 | High |
| | | 5.6 | 8.4 | 17.8 | 36.4 | 31.8 | | |
| 6 | The lack of ICT integration in ODL curriculum is a challenge for students to adapt in the virtual classes. | 5 | 8 | 19 | 35 | 40 | 3.91 | High |
| | | 4.7 | 7.5 | 17.8 | 32.7 | 37.4 | | |
| Overall Mean Score for Students' Perception towards ODL | | | | | | | 4.52 | Very High |

Based on Table 3 above, there were six factors with a total of 34 items under Students' Perception towards Open and Distance Learning (ODL) section. Firstly, for the *Factor 1 – Quality of ODL*, item No. 6 scored the highest mean, which is 4.76. It was found that majority of the students responded 'Very Agree' (76.6%) to the statement that lecturers encourage students to integrate the use of ICT in learning. Meanwhile, item No. 3 scored the lowest mean value, at 4.25. In this item, there were mixed responses between 'Agree' (38.3%) and 'Very Agree' (44.9%) regarding the statement that the quality of ODL is better than traditional face-to-face on-campus classroom learning.

For *Factor 2 – Opportunity in ODL*, it was found that item No. 6 had the highest mean value among all, at 4.87. The majority of students 'Very Agree' (86.9%) that they have found a greater opportunity for distance learning amid the COVID-19 pandemic. On the other hand, item No. 3 scored the lowest mean value in this factor, at 4.59. In this item, more than half of the students responded 'Very Agree' (62.6%) to the statement that the ODL classes create

interactive environment for both lecturers and students with an opportunity to interact with each other. The rest of the students responded 'Agree' (33.6%) and 'Less Agree' (3.7%) for this item.

Next, for *Factor 3 – Relevancy of ODL*, it was found that both items No. 1 and No. 4 shared the highest mean value, at 4.79. For item No.1, majority of the students responded 'Very Agree' (80.4%) that the ODL programme is a relevant way of gaining higher education in Malaysia. Also, most students responded 'Very Agree' (81.8%) on item No. 4 that ODL classes are effectively conducted on time using relevant online technology such as Webex and the ODL System. Meanwhile, item No. 5 scored the lowest mean value, at 4.57. Four students responded 'Less Agree' (3.7%) to the statement that the ODL teaching model helps students analyse and solve relevant problems related to the delivery of the lessons.

Moving on to the next *Factor 4 – Professional Development*, the item with the highest mean value was item No. 1, with a mean value of 4.79. The majority of the students responded 'Very Agree' (79.4%) to the statement that the knowledge obtained from the ODL programme helps them to increase the quality of their education. Meanwhile, item No. 4 scored the lowest mean value, at 4.45 as compared to the rest. There were mixed responses to the statement that there is sufficient interaction among the students during online class to increase their social skills; 61 students responded 'Very Agree (57.0%)', 33 students responded 'Agree (30.8%)', and 13 students responded 'Less Agree (12.1%)'.

Interestingly, all items in *Factor 5 – Student Support in ODL* scored almost identically to each other. In this factor, item No. 3 scored the highest mean value, at 4.66. The majority of the students responded 'Very Agree' (68.2%) to the statement that online learning platforms such as *ODL System* and *Cisco Webex* are sufficient for the teaching and learning process. On the other hand, item No. 1 scored the lowest mean value, at 4.61. There was mixed perception about the statement that the structure of delivery in the *ODL System* supports students' learning, whereby two students responded 'Less Agree' (1.9%).

Lastly, for *Factor 6 – Challenges with ODL*, it was found that all items had a mixed response ranging from 'Very Disagree' to 'Very Agree'. In this factor, item No. 1 had the highest mean value among all, which was 4.12. 49 students responded 'Very Agree' (45.8%) to the statement that ICT-related skills among ODL lecturers are the major challenges in maintaining good online teaching and learning. However, three students responded otherwise (Very Disagree = 2.8%) to that statement. In terms of the lowest mean value, item No. 5 had scores of 3.80. It can be seen that students had mixed perceptions about the statement that the lack of ICT integration in the ODL curriculum is a challenge for students to adapt to virtual classes.

To conclude, students' perception towards the ODL programme in terms of quality, opportunity, relevancy, professional development, student support, and challenges was found to be very positive. The analysis aforementioned proved that most students in the Master in Educational Technology - ODL programme had a very positive perception towards the programme itself.

3.1.3 Students' Satisfaction with Open and Distance Learning

This section consists of four sub-constructs or 30 items as a whole. This section aimed to identify students' satisfaction with Open and Distance Learning (ODL). Table 4 presents the data distribution by using descriptive statistics. Once again, the mean interpretation below is according to Pimentel [27], which can be referred to Table 1.

Table 4

Students' Satisfaction with Open and Distance Learning

| Factor 1: Learning Materials | | | | | | | | |
|------------------------------|--|--------------------------|-------------|--------------|-------------|--------------|------|---------------------|
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | Learning materials provided are suitable for the course. | - | - | 4 | 29 | 74 | 4.65 | Very High |
| | | - | - | 3.7 | 27.1 | 69.2 | | |
| 2 | Video lectures are helpful for my study. | - | - | 3 | 23 | 81 | 4.73 | Very High |
| | | - | - | 2.8 | 21.5 | 75.7 | | |
| 3 | The subject / course contents are thorough. | - | - | 3 | 34 | 70 | 4.63 | Very High |
| | | - | - | 2.8 | 31.8 | 65.4 | | |
| 4 | The subject / course contents are easily understood. | - | 1 | 7 | 42 | 57 | 4.45 | Very High |
| | | - | .9 | 6.5 | 39.3 | 53.3 | | |
| 5 | The activities and self-checks in the <i>ODL System</i> are sufficient to help learning. | - | 1 | 8 | 25 | 73 | 4.59 | Very High |
| | | - | .9 | 7.5 | 23.4 | 68.2 | | |
| 6 | Other learning materials should also be included in the <i>ODL System</i> . | - | 1 | 6 | 36 | 64 | 4.52 | Very High |
| | | - | .9 | 5.6 | 34.5 | 58.2 | | |
| 7 | The learning materials are applicable to the current situation. | - | - | 2 | 37 | 68 | 4.62 | Very High |
| | | - | - | 1.9 | 34.6 | 63.6 | | |
| Factor 2: Lecturers | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | Lecturers are knowledgeable in their area of expertise. | - | - | 5 | 16 | 86 | 4.76 | Very High |
| | | - | - | 4.7 | 15.0 | 80.4 | | |
| 2 | The lecturers are always ready to answer my questions / queries. | - | 1 | 8 | 19 | 79 | 4.64 | Very High |
| | | - | .9 | 7.5 | 17.8 | 73.8 | | |
| 3 | The lecturers help me in my learning. | - | - | 5 | 20 | 82 | 4.72 | Very High |
| | | - | - | 4.7 | 18.7 | 76.6 | | |
| 4 | The lecturers are using strategic manner to help me learn. | - | 1 | 4 | 25 | 77 | 4.66 | Very High |
| | | - | .9 | 3.7 | 23.4 | 72.0 | | |
| 5 | The lecturers shared a lot of learning materials in <i>ODL System</i> . | - | - | 6 | 29 | 72 | 4.62 | Very High |
| | | - | - | 5.6 | 27.1 | 67.3 | | |
| 6 | The lecturers are friendly. | - | - | 4 | 17 | 86 | 4.77 | Very High |

| | | - | - | 3.7 | 15.9 | 80.4 | | |
|--|--|--------------------------|-------------|--------------|-------------|--------------|------|---------------------|
| 7 | The lecturers are approachable. | - | - | 5 | 25 | 77 | 4.67 | Very High |
| | | - | - | 4.7 | 23.4 | 72.0 | | |
| Factor 3: Course Assessment Matters | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | I am satisfied with the assessment method for the courses / subjects in the ODL programme. | - | 1 | 3 | 34 | 69 | 4.60 | Very High |
| | | - | .9 | 2.8 | 31.8 | 64.5 | | |
| 2 | The assignments help me to learn the course materials better. | - | 1 | 3 | 28 | 75 | 4.65 | Very High |
| | | - | .9 | 2.8 | 26.2 | 70.1 | | |
| 3 | I prefer multiple choice questions (MCQ). | 5 | - | 14 | 25 | 63 | 4.32 | Very High |
| | | 4.7 | - | 13.1 | 23.4 | 58.9 | | |
| 4 | The guidelines of the assignments are clear. | - | 1 | 5 | 41 | 60 | 4.50 | Very High |
| | | - | .9 | 4.7 | 38.3 | 56.1 | | |
| 5 | The guidelines of the assignments are sufficient. | - | 1 | 8 | 41 | 57 | 4.44 | Very High |
| | | - | .9 | 7.5 | 38.3 | 53.3 | | |
| 6 | I prefer an application type of assignments. | - | 1 | 13 | 36 | 57 | 4.39 | Very High |
| | | - | .9 | 12.1 | 33.6 | 53.3 | | |
| 7 | I prefer a concept or theoretical type of assignments. | 2 | 8 | 30 | 39 | 28 | 3.78 | High |
| | | 1.9 | 7.5 | 28.0 | 36.4 | 26.2 | | |
| 8 | I prefer assignments that require me to analyze. | 4 | 4 | 26 | 41 | 32 | 3.87 | High |
| | | 3.7 | 3.7 | 24.3 | 38.3 | 29.9 | | |
| 9 | I prefer simple assignments. | 2 | 2 | 7 | 20 | 76 | 4.55 | Very High |
| | | 1.9 | 1.9 | 6.5 | 18.7 | 71.0 | | |
| 10 | I prefer the essay type of assignments. | 8 | 7 | 36 | 28 | 28 | 3.57 | High |
| | | 7.5 | 6.5 | 33.6 | 26.2 | 26.2 | | |
| Factor 4: Overall Programme Structure | | | | | | | | |
| No. | Item | Frequency and percentage | | | | | Mean | Mean Interpretation |
| | | VD f % | D f % | LA f % | A f % | VA f % | | |
| 1 | The structure of the ODL programme perfectly fits my needs. | - | - | - | 33 | 74 | 4.69 | Very High |
| | | - | - | - | 30.8 | 69.2 | | |
| 2 | The ODL programme will help me in building my career after graduation. | - | - | 3 | 25 | 79 | 4.71 | Very High |
| | | - | - | 2.8 | 23.4 | 73.8 | | |
| 3 | | - | - | 2 | 30 | 75 | 4.68 | Very High |

| | | | | | | | | |
|---|--|---|----|-----|------|------|-------------|------------------|
| | I am satisfied with the courses offered in this programme. | - | - | 1.9 | 28.0 | 70.1 | | |
| 4 | I enjoy the Educational Technology core courses offered in this programme. | - | 1 | 3 | 29 | 74 | 4.64 | Very High |
| | | - | .9 | 2.8 | 27.1 | 69.2 | | |
| 5 | I learned Educational Technology courses as expected. | - | 1 | 1 | 36 | 69 | 4.62 | Very High |
| | | - | .9 | .9 | 33.6 | 64.5 | | |
| 6 | The programme offered via ODL suits my needs. | - | - | 2 | 31 | 74 | 4.67 | Very High |
| | | - | - | 1.9 | 29.0 | 69.2 | | |
| Overall Mean Score for Students' Satisfaction with ODL | | | | | | | 4.52 | Very High |

Based on Table 4 above, there are four factors with a total of 30 items under Students' Satisfaction with Open and Distance Learning (ODL) section. The highest mean value under *Factor 1 – Learning Materials* was item No. 2. 81 students responded 'Very Agree' (75.7%) to the statement that video lectures are helpful for their study. On the other hand, item No. 4 had the lowest mean value, at 4.45 in this factor. In this case, one student responded 'Disagree' (0.9%) and seven students responded 'Less Agree' (6.5%) to the statement that the subject and course contents are easily understood.

Secondly, as for *Factor 2 – Lecturers*, all items in this particular factor had a very high mean value. The item with the highest mean value was item No. 6, as the majority of the students responded 'Very Agree' (80.4%) to the statement that the lecturers are friendly. On the other hand, item No. 5 had the lowest mean value in this group, although it scored a very high mean value on its own. To be specific, six students responded 'Less Agree' (5.6%), 29 students responded 'Agree' (27.1%), and 72 students responded 'Very Agree' (67.3%) to the statement that the lecturers shared a lot of learning materials in the ODL System.

As for *Factor 3 - Course Assessment Matters*, the item with the highest mean value among all was item No. 2, at 4.65. In this item, 75 students responded 'Very Agree' (70.1%) to the statement that the assignments help them learn the course materials better. However, one student felt otherwise and responded 'Disagree' (0.9%), while the rest responded 'Less Agree' (2.8%) and 'Agree' (26.2%). As for the lowest mean value in this group, it was item No. 10, at 3.57. It was found that there were mixed responses, ranging from 'Very Disagree' to 'Very Agree', to the statement that they prefer the essay-type of assignments.

Lastly, as for *Factor 4 - Overall Programme Structure*, all items here were almost similar in terms of their mean value. Item No. 2 had scored 4.71 mean value, which was the highest in this group. A total of 79 students responded 'Very Agree' (73.8%) to the statement that the ODL programme will help them in building their career after graduation. However, in this case, there were three other students who responded 'Less Agree' (2.8%) to the given statement. In terms of the lowest mean value, item No. 5 had scores of 4.62. Although many students responded 'Agree' (33.6%) and 'Very Agree' (64.5%) to the statement that they learned Educational Technology courses as expected, there were others who responded 'Less Agree' (0.9%) and 'Disagree' (0.9%).

In summary, students were very satisfied with the ODL programme in terms of learning materials, lecturers, assessment, and overall programme structure. Based on the analysis, the high mean score is a solid indicator of their satisfaction level. Most of the responses were statistically leaning towards the positive area.

3.2. Discussion

The findings were discussed thoroughly based on the analysis made in the previous section. The findings of this research were subsequently compared with the previous research and their implications were identified.

3.2.1. Students' Perception towards Open and Distance Learning

For the first *Factor 1 – Quality of ODL*, all items here scored a very high mean. The item with the highest mean was item No. 6, whereby students agree that lecturers encourage them to integrate the use of ICT in their learning. As a matter of fact, ICT is the main component in establishing Open and Distance Learning (ODL). Although the students came from different backgrounds, it was crucial for lecturers to motivate the students to be familiar with the use of technology throughout their study. Additionally, most students agreed that the quality of ODL in terms of assessment, assignments, and learning is better than in traditional face-to-face on-campus learning. That meant that ODL programme could provide an equal or even better quality of education as compared to face-to-face learning. This finding was in line with a study by Upadhayaya *et al.* [4] who also used similar item.

As for *Factor 2 – Opportunity in ODL*, students perceived that online classes provided them with an opportunity to study from their own places and have flexibility in time. Students also agreed that ODL created an opportunity for higher education while having a fulltime job. This was because ODL naturally gave students the freedom of remote learning. Learning can be done at home and even at their workplace if desired. This finding was coherent with a recent study by Almahasees *et al.* [21], whereby respondents agreed that online learning is about self-learning, low costs, convenience, and flexibility.

Moving on to *Factor 3 – Relevancy of ODL*, all items here scored relatively high, with a mean of 4.71 overall. Students agreed that ODL is a relevant way of gaining higher education in Malaysia. Also, they agreed that ICT tools used in the ODL programme are relevant and motivate them in their learning. According to Ali and Fadzil [28], one of the recommendations included in the formulation of the 9th Malaysia Plan was to create excellence in the education system by providing opportunities to pursue higher education, increasing the number of community colleges and distance learning programmes. That being said, it can be concluded that the plan had been executed successfully.

Next is *Factor 4 – Professional Development*. Although majority of the students responded 'Very Agree' that knowledge obtained from the ODL programme helps them to increase the quality of their education, there were mixed perceptions when they were asked about interaction matters. In that case, the online interaction cannot be compared to real face-to-face communication. The interaction definitely became difficult as ODL emphasises self-centred learning and also because of the use of ICT, which not every student is familiar with. This finding was similar to studies by Ismail *et al.* [19] and Almahasees *et al.* [21], which also reported the lack of interactions in online learning caused by technical issues and limited time.

As for *Factor 5 – Student Support in ODL*, the analysis found that most students responded 'Very Agree' that there is sufficient student support in ODL. To be precise, the student support referred to learning platform (e.g.: *ODL System, Cisco Webex*, etc.), learning materials, and other necessary resources that support students' learning. As reported by Nawi *et al.* [3], Faculty of Social Sciences and Humanities at Universiti Teknologi Malaysia (FSSH UTM) has already become accustomed to online learning. Therefore, it is proven that the ODL programme at UTM has been professionally structured and has a solid student support system. Consistent with the result, a study by Maijo [18] also found that students were impressed with the support services provided to them.

Lastly, for the final *Factor 6 – Challenges with ODL*, students had mixed perceptions regarding the challenges listed in this subconstruct. The responses received ranged from 'Very

Disagree' to 'Very Agree'. Around 47 students found that the ODL programme was already well-designed and did not have any challenges; thus, they rated it lower. On the other hand, those who rated it higher agreed that ICT-related challenges, technical competency, and pedagogy competency were major challenges for students and lecturers in ODL programme. The previous findings by Upadhayaya *et al.* [4], who originally developed this construct, acquired almost the same result as the current study, except for the case where some students felt that the ODL programme had no challenges.

Based on the discussion above, ODL students in UTM had a very positive perception towards the ODL programme. The finding was in line with many past studies despite the population not being the same. That being said, the positive perception is a good indicator of the success of this programme.

3.2.2. Students' Satisfaction with Open and Distance Learning

In the previous analysis section, this particular construct scored a very high mean overall. Four sub-constructs or factors were identified; learning materials, lecturers, course assessment matters, and overall programme structures. As for *Factor 1 – Learning Materials*, the students were very satisfied with the provided learning materials. The learning materials were suitable for the course, helpful for their learning, and easily understood. According to Itasanmi [25], educational resources had a significant relationship with students' satisfaction with ODL programme. This finding was also similar to Rajadurai *et al.* [24], whereby learners were satisfied with their usage of learning materials.

Secondly, for *Factor 2 – Lecturers*, most responses here leaned towards the positive side. Students found that lecturers in ODL were knowledgeable in their area of expertise, friendly, and helped students in their learning. They were very satisfied that the lecturers were always ready to answer their questions and used strategic manner to help students learn. Itasanmi [25] explained that teaching and learning experiences contributed to general satisfaction in ODL programme. Other than that, Agbanu and Ahiase [26] also supported that the instructor's performance and their interaction with students significantly contributed to the students' satisfaction.

The third factor to be discussed is *Factor 3 – Course Assessment Matter*. Most students were satisfied with the assignments as they help them to learn course materials better. The guidelines of the assignments were clear and sufficient for most of the students, too. However, many students disagreed with certain types of assignment such as essays, theoretical assignments, and any form of assignment that requires them to analyse. To explain this situation, ODL students were mostly working adults who were occupied with their daily job. Some of them reported that they did not have sufficient time to complete their assignments and found it to be burdensome. Therefore, they preferred simple assignments over anything else. This particular finding was congruent with a past study by Kamarulzaman and Siew [22], who also concluded that students were least satisfied with the assessment matter.

Lastly for *Factor 4 – Overall Programme Structure*, most students were very satisfied with the structure of the ODL programme in Universiti Teknologi Malaysia (UTM). The programme fit their needs, and they enjoyed the Educational Technology course as expected. Students also believed the ODL programme would help them build their career after graduation. As reported by Nawi *et al.* [3], the Faculty of Social Sciences and Humanities (FSSH) in UTM, especially the academic staffs, were accustomed to online learning. Therefore, it was proven that the ODL programme at UTM was professionally structured. Similarly, a previous study by Kamarulzaman and Siew [22] which was conducted at Open University Malaysia (OUM), also found that students were most satisfied with the ODL programme structure.

To conclude the discussion above, ODL students in UTM were very satisfied with the ODL programme. The finding of this particular section was coherent with several past studies.

As mentioned previously, students' satisfaction strongly predicted academic performance [10]. It was also a significant aspect of promoting higher education institution successfully [16].

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The potential of the Open and Distance Learning (ODL) programme is tremendous, and has opened up a wide range of possibilities for higher education. This study has been successfully conducted to identify students' perception of and satisfaction with ODL programme at Universiti Teknologi Malaysia (UTM). The findings of this study suggested that students had a very positive perception and were highly satisfied with the ODL programme. It is hoped that the findings will be insightful for UTM, especially for the School of Education as a service provider in taking professional consideration to improve the quality of the mentioned ODL programme. Lastly, further research may need to explore the use of Learning Analytic in the ODL learning environment to understand students' learning patterns and behaviours, in order to improve the quality of teaching and learning for ODL students.

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СПРИЙНЯТТЯ СТУДЕНТАМИ ВІДКРИТОГО І ДИСТАНЦІЙНОГО НАВЧАННЯ ТА РІВЕНЬ ЗАДОВОЛЕНOSTІ НИМ В ТЕХНОЛОГІЧНОМУ УНІВЕРСИТЕТІ МАЛАЙЗІЇ

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Анотація. У Технологічному університеті Малайзії (Universiti Teknologi Malaysia, UTM) програма відкритого та дистанційного навчання (ВДН) почала діяти зовсім недавно і для її вдосконалення потрібно ще багато чого зробити. Програма була впроваджена ще до спалаху пандемії і мала добрі результати. Однак для оптимізації як навчання студентів, так і якості освітньої програми необхідне постійне оцінювання. На успіх програми ВДН може вплинути те, як її сприймають студенти, яку вони беруть у ній участь, а також наскільки вони задоволені своїм навчальним досвідом. Тож кількісне дослідження було проведено на основі опитування дизайн-дослідження, яке мало на меті визначити сприйняття студентами програми ВДН та рівня їх задоволеності нею. Інструментом, який використовувався в цьому дослідженні, була анкета з пунктами, запозиченими з попередніх досліджень та дещо модифікованими. Крім того, для валідації інструменту було відібрано двох викладачів освітніх технологій з дворічним досвідом викладання програми ВДН. У програмі взяли участь студенти - дорослі люди, які мають постійне працевлаштування і знаходяться як в країні, так і за її межами. Загалом 107 студентів відповіли на питання анкети, дані якої були проаналізовані за допомогою методів описової статистики. Аналіз показав, що більшість студентів дуже позитивно сприймають програму ВДН і дуже задоволені нею. Сподіваємось, що результати дослідження будуть корисними для Технологічного університету Малайзії, особливо на педагогічному факультеті як постачальника послуг для покращення якості згаданої програми з професійної точки зору. Крім того, для покращення якості викладання ці висновки стануть корисними для викладачів ВДН.

Ключові слова: сприйняття; задоволеність; відкрите та дистанційне навчання; ВДН; онлайн-навчання.



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