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INFORMATION RETRIEVAL THROUGH MOODLE (LEARNING MANAGEMENT SYSTEM) AND FACEBOOK (SOCIAL MEDIA) AMONGST STUDENTS OF THE NATIONAL DEFENCE UNIVERSITY OF MALAYSIA (NDUM)

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Abstract: *In higher education level of study, students often face difficulties in retrieving information especially academic information. In today's modern world, it is found that there are many ways to retrieve information such as through Moodle, which is a Learning Management System and Facebook, which is a Social Media. The objectives of this study are to identify the preference between retrieving information through Moodle and Facebook, to investigate the reasons why students choose Moodle or Facebook and, to find whether there is correlation between the use of Moodle and Facebook in information retrieval activities. This study uses a quantitative approach where a questionnaire was constructed using Google Form. The sampling used in the study is a convenient sampling which focuses on students from five faculties at the National Defence University of Malaysia, in which questionnaires are distributed to 150 respondents. The data from the questionnaire are analysed using descriptive analysis, reliability analysis, inferential analysis, and thematic analysis. Descriptive analysis is conducted to collect the frequency, percentage, and mean values of data. The reliability analysis is conducted to six questions on Moodle and six questions on Facebook, inferential analysis is conducted to the Dependent Variable and Independent Variables of study questions, and lastly, thematic analysis is conducted to analyse the answers to the open-ended questions. The finding of the study exposed that most students preferred to use the Moodle in retrieving academic information where they claimed, it is a better platform to retrieve information as it has the features which are suitable and seen by the students as a more valid and reliable source of receiving academic information. Nevertheless, there is a fair percentage of students who preferred Facebook over Moodle. This implies that the disparity of students' preferences in retrieving information should be taken into consideration by educationists when preparing teaching and learning.*

Keywords: *Learning management system, social media, retrieving information*

Introduction

Today, technology spreads swiftly as an arrow. It spreads widely as every people in the world has access to it. Smartphones and computers are some examples of technology gadgets that are used by everyone in the world. In spreading information, like news, current issues, and announcements; it is easier now to deliver them by using these technology gadgets and the internet. These gadgets make it faster to access any information nowadays.

At universities, students' time table is packed with activities. Students at all-time need to find information and are at ease if the information is easily assessable and on the go. For academic purposes, the university has promoted learning to be conducted via electronic media which is learning using the internet or well known as e-learning. The university promotes this by having a university platform which is called Moodle. Moodle is the most common open source a Learning Management System (LMS) (Kushwaha et al., 2019). The use of LMS, such as Moodle, is to serve as the platform for course sites where its objectives are: 1) providing students with digital learning materials, such as articles, presentations, summaries of lessons, and arrange them in a way that reflects the course plan; 2) to employ interactive learning activities with students in forums, wikis, and other collaborative tools; and 3) to manage the course and the learners, maintaining tests, evaluating the students' learning and achievements, and giving grades online (Meishar-Tal et al., 2012). In addition, Alkhateeb (2021) explored factors influencing students' satisfaction towards using LMS (Moodle) and found that the 6 factors: ease of use, usefulness, information quality, system quality, service quality, and computer self-efficacy. He also recommended that the Moodle should be integrated with social media platforms and could be assessed fully and properly by mobile phones. It is an alternative for lecturers to deliver assignments besides giving them out in the classrooms. Moodle eases the users in accessing the information.

On the other hand, the lecturers have an option to put the assignments on social media such as Facebook and Twitter. Facebook and Twitter are examples of social networking sites or Social Media (SM). Most students nowadays, have Facebook accounts so they have the option of fetching the assignments from this media. It is handy for them as they can retrieve the academic information at anytime and anywhere in their daily life or on-the-go access. A Facebook group contains some LMS components, digital and interaction components and is seen as an alternative to the LMS. It is also labelled as an entertainment-oriented site or edutainment tool. Facebook seems to be one of the most effective tools because students generally respond to discussions quickly and are comfortable enough in their "space" to share their information and opinions (Hassan, 2014). Facebook is the number one social network site which has 2, 500, 000, 000 monthly active users in 2021 (Kallas, 2021). It has the largest number of users aged 13 to 17, although the number may be shrinking (Sehl, 2019), and 86% of people ages 18 to 29 use Facebook (Khorox.com, n.d), representing people who are in colleges and universities worldwide.

From all the stated points above, there is a need to conduct this study. For one, if social media such as Facebook is a potential and sufficient tool for learning and teaching that can be used for this group of young people's information retrieval, why is there a need to have an LMS at university's level? For this matter, it is also essential to understand the advantages and disadvantages, as well as how to appropriately use Facebook for learning and teaching. The focus of the study is on retrieval of information, to be exact information for academic, for both LMS (Moodle) and social media (Facebook).

Literature Review

Theory on online learning

According to Van Buren and Sloman (2003), 62% of all learning technology initiatives failed to meet expectations. Some authors mentioned the main classes of learning theory which are related to online learning are: Behaviourism, Cognitivism, and Constructivism (Driscoll & Carliner, 2005; Ertmer & Newby, 1993). In Anderson (2008), the nature of online training, the position of interaction, and the chances theories and models for online learning are given. Cognitive developmental learning theory plays a key role in the early cases of understanding

approaches to thinking. E-learning using MOODLE encourages the students to use the mind to understand, interpret, analyze and manipulate information to find possible solutions for various problems and encourages students to think, to generate new ideas, to focus and to be active throughout the teaching and learning activities (Sumarwati et al., 2020). Because of its nature, where time and distance often divide educators and students, cognitive processes play a more important role in e-learning. E-learning keeps lecturers apart from students, hence he or she needs to use cognitive processes more (e.g. to think of online activities that will induce maximum participation and not bore his or her student) and vice versa. The question here, which electronic media involves more cognitive processes; a LMS or SM? Obviously, the one which eases usability will interest students more.

Theory on Learning Management System

An LMS is a software programme for administration, documentation, reporting, tracking, and provides educational courses, education applications, or learning and development programmes. An LMS enables communication and interaction between teachers and students in the virtual space. The origins of educational management, in particular, e-learning management, relate to the General Theory of Administration in the 20th century. According to Sobral and Peci (2008), administration consists of efficient and effective use of resources within the organisation, so that its objectives can be achieved. In this regards, the contemporary administration process involves **four** interrelated activities called administrative functions: planning, organisation, management, and control. To confirm the effectiveness of a programme (Moodle), users (both lecturer and students) need to have the ability to plan, organise, manage, and control the software. This means, a lecturer who puts a course on Moodle, needs to plan, organise, manage, and control Moodle to ensure the effectiveness of Moodle.

Theory on Social Media

According to Hudson (2017), social media refers to websites and web-programmes designed to permit people to share content advance, effectively, and in real-time. There are some features that social media share in common, which is social media are interactive Web 2.0 Internet-based programmes, consumer-generated content, consisting textual content or comment posts, digital or video photos, and data generated through all online interactions, and lastly social media facilitates the development of online social networks by connecting user profiles with different individuals or groups.

A theory which is related to social media is **Uses and Gratification Theory (UGT)**. The UGT discusses on how people actively looking for specific media content for a specific purpose and general purpose (Katz, Blumler, & Gurevitch, 1974). UGT reinforces the communication transition of communication knowledge, from observation it is not what effect the media has on people, but what people can do with the media. In addition, according to West and Turner (2007), UGT offers a “framework for understanding when and how the users become more or less active and consequently increase or decrease engagement”. This theory has five predominant assumptions:

- (1) The target people are active and active in their media,
- (2) The media was used to their satisfaction,
- (3) The media competes in other ways,
- (4) People understand the functions of personal media, and their motive was sufficient to communicate with the researchers about their choices, and
- (5) The audience was the person that could consider the value of media content.

People have Facebook accounts because they because they have cultivated a daily habit of going online to go through their feed which covers a daily dose of news content and updates from their friends. Sometimes, they upload photos of their trips and comment on existing stuff, and these give satisfactions to the users but not using the app causes tension and uneasiness. In other words, people use Facebook for multiple reasons, amongst them are to write comments or like a post, seek attention, stalk people, to lessen boredom, promote one's work, support social cause, and to remain connected with friends.

What is Moodle?

According to TFD Encyclopedia, Moodle is an open-source Learning Management System (LMS) written in PHP and dispensed under the General Public License (GNU). An object-oriented dynamic learning environment is a kind of LMS or an online learning system (OLS) (TFD Encyclopedia, 2017). According to Technopedia, LMS was originally developed by educators and is now maintained by Moodle Community and Moodle HQ. Moodle course management offers functionality for developing and managing online education courses. Features of Moodle include the ability to develop courses, signed up students, manage assignments, and offer quizzes, grading, and discussion forums for thousands of virtual college or university students at a time and also Moodle could be used as a generic knowledge management system.

What is Facebook?

According to Daniel Nations (2016), Facebook is a social networking web page where users can post comments, share pictures and links to new information or other interesting content on the net, live chat, and watch short videos. The shared content is publicly reachable, or it may be shared only with a specific group of friends or family, or with one person. According to Goodwill (2018), Facebook is first designed for college students. Facebook was developed in 2004 by Mark Zuckerberg when he is one of the students at Harvard University. In 2006, any person that is over the age of 13 with a valid email address could join Facebook. Today, Facebook is the largest social network community in the world, with more than 1 billion users globally. The key feature of Facebook that makes it popular is, it lets you keep a list of friends and choose privacy settings to personalise who can access the content on your profile, able you to upload photos and store photo albums that you able to share with your friends and lastly Facebook's developer network provides advanced options for functionality and monetisation.

Methodology

Data Collection Method

This study has adopted the combination of quantitative and qualitative design research conducted on NDUM students. Based on the study goals and questions, the number of respondents in this study covered all undergraduate students at the National Defence University of Malaysia (NDUM). These undergraduates included students from different faculties where there are 800 students from Year One, 1200 from Year Two, 800 from Year Three and, the rest are from Year Four and Five. The kind of sampling conducted was convenience sampling. Convenience sampling is different from random sampling, while random sampling is a subset of a statistical population where each member has the equal probability to be chosen, convenience sampling is a type of sampling that involves the sample being drawn from the part of population that is close to hand. The questionnaires were distributed to all 150 students from five faculties which are the Engineering Faculty, Defence Studies and Management, Defence Science and Technology, Language Centre, and Medicine and Defence Health. One class was

picked from each faculty. They were picked on the grounds that they were reachable and easy to approach and ready to answer a questionnaire, specifically constructed for this study. A five point Likert Scale was used utilised to gauge the close ended questions in this study as it enables measurements to be evaluated. The scale ranged from (5: Strongly agree/ I like it very much to (1: Strongly disagree/ I don't like it at all). The questionnaire is in Google Form which is indicated by Silva (2018) as an online application created by Google that is utilised to make structures for information assortment purposes. Information gathered utilising structures is normally put away in a spreadsheet and transferred to SPSS for detailed analysis. It required no cost and just set aside a brief time of effort to gather the data from respondents. In addition, self-managed overview bears the open door for the study to presented the study theme and enables any uncertainty from the respondents to be explained on the spot to guarantee a 100% reaction rate for the review (Sekaran & Bougie, 2013).

There were three sections in the questionnaire and questions are based on how the respondents retrieved information through the e-learning platform and social media amongst undergraduate students at the NDUM. For Section A, there are 4 questions on respondents' demographic information. Secondly, in Section B, there are 6 questions where each question has three parts: Part a, b and c. Lastly, Section C has only one question which asked respondents the reasons for their preference of retrieving information.

Table 1: The Faculties and Number of samples of study

Faculty Year	Engineering	Defence Studies and Management	Defence Science and Technology	Language Centre	Medicine and Defence Health	TOTAL
Year 3	20	12	22	58	2	114
Year 2	-	12	-	-	24	36
Year 1	-	-	-	-	-	-
TOTAL	20	24	22	58	26	150

Reliability

The reliability of the items in the questionnaire was tested using Cronbach Alpha coefficient as shown in Table 1. Cronbach's Alpha coefficient is used to check the reliability of instrument which refers to the consistency or stability of a measure of behaviour (Drost, 2011).

Table 2: Cronbach's Alpha values for Each Variables

PART (no of questions)	VARIABLE	ALPHA VALUE	INTERNAL CONSISTENCY
A (6 questions)	Moodle	0.897	Very Good
B (6 questions)	Facebook	0.887	Very Good

The ratio of each faculty was calculated based on the total number of samples. These ratios were Faculty of Engineering 13.3%, Defence Studies and Management 16%, Defence Science and Technology 14.7%, Language Centre 38.7%, and Medicine and Defence Health 17.3%.

Data Analysis

Demographic Profile

Table 3 below shows the demographic profile of students who answered the questionnaire for the purpose of this study. As can be seen in Table 3, the population sample was made up of only Year 2 (23.8%) and Year 3 (76.2%) students. As for the status of respondents; there were 52 respondents (34.4%) from the Civilian status, 86 respondents (57%) from the ROTU and lastly, 13 respondents (8.6%) from the Cadets. For this research, ROTU has the highest number of respondents. The least respondents recorded was from the Cadet; which showed that the number of Cadet students in a normal class at the NDUM is decreasing or low.

Table 3: Distribution of Respondent's Demographic Information

SUBJECT	FREQUENCY	PERCENTAGE (%)
<u>Faculty</u>		
Faculty of Engineering	20	13.2
Language Centre	58	38.4
Faculty of Defense Science and Technology	22	14.6
Faculty of Medicine and Defense Health	26	17.2
Faculty of Defense Studies and Management	25	16.6
TOTAL	150	100
<u>Years of Study</u>		
Year 1	-	-
Year 2	36	23.8
Year 3	114	76.2
TOTAL	150	100
<u>Student's Status</u>		
Civilian	52	34.4
ROTU	86	57.0
Cadet	13	8.6
TOTAL	150	100

Students' Preference between Moodle and Facebook

Section B contained 6 closed-ended questions which contained three parts of questions. The data collected were analysed using descriptive statistics as shown in the table below. The total number of respondents was 150.

**Table 4: Frequency and Mean for question 1 (a) (b) to 6 (a) (b) in Section B:
Respondents' Preference between Moodle and Facebook**

ITEM	FREQUENCY (PERCENTAGE %)	MEAN (LEVEL)
<u>Q1 (a). How do you like getting introduction to a new course (syllabus, course assessment) from Moodle (LMS)?</u>	I don't like it all 1 (0.7) I don't like it 14 (9.3) I am neutral 31 (20.7) I like it 63 (42.0) I like it very much 41 (27.3)	3.86 (High)
<u>Q1 (b). How do you like getting introduction to a new course (syllabus, course assessment) from Facebook (Social Media)?</u>	I don't like it all 19 (12.7) I don't like it 27 (18.0) I am neutral 37 (24.7) I like it 47 (31.3) I like it very much 21 (13.3)	3.15 (Medium)



Q2 (a). <u>How do you like getting course notes (in word file) from Moodle (LMS)?</u>	(1) I don't like it all 1 (0.7) (2) I don't like it 13 (8.7) (3) I am neutral 19 (12.7) (4) I like it 68 (45.3) (5) I like it very much 49 (32.7)	4.01 (High)
Q2 (b). <u>How do you like getting course notes (in word file) from Facebook (Social Media)?</u>	I don't like it all 20 (13.3) I don't like it 38 (25.3) I am neutral 52 (34.7) I like it 34 (22.7) I like it very much 6 (4.0)	2.79 (Medium)
Q3 (a). <u>How do you like retrieving announcement from Moodle (LMS)?</u>	I don't like it all 6 (4.0) I don't like it 22 (14.7) I am neutral 25 (16.7) I like it 61 (40.7) I like it very much 36 (24.0)	3.66 (High)
Q3 (b). <u>How do you like retrieving announcements from Facebook (Social Media)?</u>	I don't like it all 21 (14.0) I don't like it 36 (24.0) I am neutral 39 (26.0) I like it 38 (25.0) I like it very much 16 (10.7)	2.95 (Medium)
Q4 (a). <u>How do you like retrieving assignments from Moodle (LMS)?</u>	I don't like it all 4 (2.7) I don't like it 9 (6.0) I am neutral 27 (18.0) I like it 59 (39.3) I like it very much 51 (34.0)	3.96 (High)
Q4 (b). <u>How do you like retrieving assignment from Facebook (Social Media)?</u>	I don't like it all 24 (16.0) I don't like it 48 (32.0) I am neutral 35 (23.3) I like it 33 (22.0) I like it very much 10 (6.7)	2.71 (Medium)
Q5 (a). <u>How do you like retrieving information through chat from Moodle (LMS)?</u>	I don't like it all 12 (8.0) I don't like it 32 (21.3) I am neutral 30 (20.0) I like it 50 (33.3) I like it very much 26 (17.3)	3.31 (High)
Q5 (b). <u>How do you like retrieving information through chats from Facebook (Social Media)?</u>	I don't like it all 17 (11.3) I don't like it 30 (20.0) I am neutral 32 (21.3) I like it 44 (29.3) I like it very much 27 (18.0)	3.23 (High)
Q6 (a). <u>How do you like retrieving reinforcement to class activities (Video on certain topic using links) from Moodle (LMS)?</u>	I don't like it all 7 (4.7) I don't like it 14 (9.3) I am neutral 33 (22.0) I like it 62 (41.3) I like it very much 34 (22.7)	3.68 (High)
Q6 (b). <u>How do you like retrieving reinforcement to class activities (Video on certain topics using links) from Facebook (Social Media)?</u>	I don't like it all 12 (8.0) I don't like it 35 (23.3) I am neutral 44 (29.3) I like it 39 (28.0) I like it very much 20 (13.3)	3.13 (Medium)

Referring to Table 4, it shows the result of frequencies and mean values for question 1(a) which is “How do you like getting introduction to a new course (syllabus, course assessment) from Moodle (LMS)?” The result showed that only 1 respondent (0.7%) chose “I don’t like it very much”. 14 respondents (9.3%) chose “I don’t like it”, 31 respondents (20.7%) chose “I am neutral”. The highest score collected was 63 respondents (42%) for “I like it” and lastly 41 respondents (27.3%) chose “I like it very much”. The mean value for that question showed a **High** level which is 3.89. In addition, the table also shows the result of frequency and mean values for question 1(b) which is “How do you like getting introduction to a new course (syllabus, course assessment) from Facebook (Social Media)?”. In this question, the reaction of respondents showed that 19 respondents (12.7%) chose ‘I don’t like it at all’ another 27 respondents (18%) chose “I don’t like it”. About 37 respondents (24.7%) chose “I am neutral”. 47 respondents (31.3%) and 21 respondents (13.3%) chose “I like it” and “I like it very much”. The mean value the question was 3.15 which at the **Medium** level.

For these two questions, the result showed that most respondents chose “I like it which they are likely to choose both Moodle (LMS) and Facebook (Social Media) in getting information on introduction to a new course. Respondents agreed that they like to get information to Introduction to the syllabus and course assessment through Moodle more (69.3%) than from Facebook (44.6%).

Table 4 represents the frequencies and mean values for question 2 (a), “How do you like getting course notes (in word file) from Moodle (LMS)?”. There is only 1 respondent (0.7%) did not agree with that and chose “I don’t like it at all”, 13 respondents (8.7%) chose “I don’t like it” and 19 respondents (12.7%) said “I am neutral”. A huge number of respondents (68 respondents) (45.3%) chose “I like it” to show that they liked using Moodle to retrieve academic information and the rest 49 respondents (32.7%) chose “I like it very much”. The question also resulted a mean value of 4.01 which is at **High** level according to the descriptive of mean score in Chapter Three. The table also shows the frequency and mean value for 2 (b) which was nearly the same with question2 (a) but it is about getting the Course note (in word file) from Facebook (Social Media). The result showed for “I don’t like it at all”, there were 20 respondents (13.3%) who chose the answer, while there were 38 respondents (25.3%) who chose “I don’t like it”. 2 respondents (34.7%) chose “I am neutral”, 34 respondents (22.7%) chose “I like it” and only 6 respondents (4.0%) agreed and chose “I like it very much”. Question 2 (b) has a mean score of 2.79 and is at **Medium** level.

From these results, it showed that both questions recorded different results. More respondents “liked” to get their course notes (in word file) from Moodle (LMS), while for Facebook (Social Media) most respondents recorded “neutral”. This shows that most of the respondents preferred to use Moodle (78%) to retrieve their course notes (in word file) than from Facebook (26.7).

For Table 4, for the frequency and mean value for question 3 (a), there were less respondents choosing “I don’t like it at all” where 6 respondents (4.0%) for Moodle (LMS) as compared to 21 respondents (14%) for Facebook; for “How do you like receiving announcement”. 22 respondents (14.7%) chose “I don’t like it” and 25 respondents (16.7%) chose “I am neutral”. 61 respondents (40.7%) agreed with answer and chose “I like it” and 36 respondents (24%) agreed very much. The mean score recorded for question 3 (a) was 3.66 and at the **High** level for retrieving announcement from Moodle. On the other hand, question 3(b), “How do you like retrieving announcements from Facebook (Social Media)?” recorded 21 respondents who chose “I don’t like it at all” which was 14% of the total respondents. For answer “I don’ like it”, there were 36 respondents (24%) who responded to that answer. 39 respondents (26%) and 38 (25.3%) respondents said that “I am neutral” and “I like it”. Lastly,

only 16 respondents (10.7%) who chose “I like it very much” and the mean score for this question was 2.95 which is the **Medium** level.

Next, for respondents’ response to liking to retrieve announcement, for Moodle it is 64.7% and for Facebook it is 35.7%; this proves that more respondents prefer to get announcement from Moodle as compared to receiving announcement from Facebook. There were a similar number of respondents who chose “I am neutral” and “I like it”.

Table 4.4 shows an impressive result of frequency and mean value on question 4 (a) and 4 (b). For question 4 (a) “How do you like retrieving assignments from Moodle (LMS)?”. Respondents showed a very responsive answer. There were only 4 respondents which was 2.7% of respondents who answered “I don’t like it at all” and 9 respondents (6%) who answered “I don’t like it”. On the other hand, for answer “I am neutral”, there were 27 (18%) respondents who chose neutral. There were 59 respondents (39.3%) who chose “I like it” and 51 respondents (34%) said “they like it very much”. The mean score for this question is at the **High** level with a value of 3.96. For question 4 (b) with the question “How do you like retrieving assignment from Facebook (Social Media)?” showed that 24 respondents with 16% of total 150 respondents, chose “I don’t like it at all” and 48 respondents (32%) said that “I don’t like it”. For the option “I am neutral”, there were 35 respondents (23.3%) who chose that and 33 respondents (22%) chose “I like it”. Only 6.7% respondents (10 respondents) chose “I like it very much”. The mean score of the question was at the **Medium** level with a score of 2.71 according to the description of mean score in Chapter Three.

Both questions showed that students prefer retrieving assignments from Moodle (73.3%) than Facebook (28.7%). 72 students (48%) do not like getting their assignments from Social Media.

Question 5 (a) “How do you like retrieving information through chat from Moodle (LMS)?” showed a High level of mean score which was 3.31. There were 12 respondents (8%) who chose “I don’t like it at all” and 32 respondents (21.3%) chose “I don’t like it”. For “I am neutral” there were 30 respondents (20%) but an impressive 50 respondents chose “I like it” with a percentage of 33.3%. For the option “I like it very much”, 26 respondents (17.3%) chose this option. Next, is question 5 (b), “How do you like retrieving information through chats from Facebook (Social Media)?”, about 17 respondents (11.3%) chose “I don’t like it at all” and 30 respondents (20%) chose “I don’t like it”. 32 respondents (21.3%) said they were neutral and 44 respondents (29%) agreed with the question and chose “I like it”. 27 respondents (18%) who responded “I like it very much”. The mean score for this question is at **High** level with a score of 3.23.

In both questions, 5 (a) and 5 (b), for some options there were similar number of respondents who agreed to the options; where retrieving information through chats was concerned. The result recorded as above where both showed liking receiving information through Chat, whether it is on Moodle (50.6%) or on Facebook (47.3%).

Based on above table, question 6 (a) resulted only 7 respondents (4.7%) who chose “I don’t like it at all” and 14 respondents (9.3%) chose “I don’t like it”. For the option “I am neutral”, there were 33 respondents (22%) and an incredible number of 62 respondents (41.3%) who chose “I like it”. The rest of the 34 respondents out of 150 responses chose “I like it very much” with 22.7%. The mean score for question 6 (a) “How do you like retrieving reinforcement to class activities (Video on certain topic using links) from Moodle (LMS)?” is at a **High** level with a score of 3.68. Last question of the questionnaire, 6 (a) “How do you like retrieving reinforcement to class activities (Video on certain topics using links) from Facebook (Social Media)?” showed that 12 respondents (8%) chose “I don’t like it at all” and 35 respondents (23.3%) chose “I don’t like it”. There were 44 respondents (29%) who chose “I

am neutral” and 39 respondents (26%) chose “I like it”. Lastly, 20 respondents chose “I like it very much” to retrieve reinforcement to class activities from Facebook which was 13% of total respondents. The mean score for question 6 (b) is at **Medium** level which at 3.13.

This shows that when retrieving reinforcement activities, where the activities are videos accessible through links, the respondents preferred getting these reinforcement activities through Moodle (64.0%) rather than Facebook (41.3%).

Thematic Analysis for Open-Ended Questions

Thematic analysis emphasises on pinpointing, examining and recording patterns or themes within the data in which the themes associated to the study questions are categorised for analysis. For this study, the thematic analysis was used to analyse the only open-ended questions in Section C which is:

“In question 1(c), you have chosen either Moodle or Facebook as your preference for information retrieval. State your choice and list 3 best reasons for your choice.”

The responses were dutifully and comprehensively read and the three themes which emerged were “easy to access”, “no distraction” and “academically friendly”. Four best responses from answers with each theme were elaborated and explained.

Easy to access

The responses with the theme “Easy to access” indicated that the e-learning platform is easy to use for information retrieval. Most of the respondents agreed that Moodle is a platform that is easy to access in order to retrieve information. Below are some of the responses to this theme:

“I choose Moodle because: 1. Easier to access, its information is easier to retrieve and arrange in sequence according to week, and more private, only accessible to students taking this course.” (Respondent 55)

Respondent 55 claimed that Moodle (LMS) is easy to access and at the same time, it provides information that is easy to retrieve. He/she also mentioned that Moodle has a feature which makes it private and it is only for selected classes of students. This makes Moodle exclusive for students and makes the process of information retrieval easier. In contrast, another respondent chose Facebook (Social Media) and stated his reasons differently. Another respondent claimed that:

“I choose Moodle and Facebook as information retrieval methods because they are easy to use. It does not cost me money and they have a lot of information.” (Respondent 64)

Respondent 64 chose both Moodle and Facebook as the platform of information retrieval. He/she mentioned that both platforms are easy to use. And also, for him/her both platforms did not cost money to access or retrieve information. He/she also said that both the platforms, Moodle and Facebook contain a lot of related information that he/she could use. Next, the following respondents wrote on how it is easy to use Facebook.

“I choose Facebook because the app is easy to access. Second, I am using the apps often. Lastly, nowadays we can get free internet for social media. Facebook is one social media.” (Respondent 66)

Respondents 66 said that Facebook is an easy app to access. He/she supported that with the point that he/she using the apps often. Respondent 66 also mentioned that he/she get free

internet for social media on his/her mobile and Facebook is one of the social media that he/she could access using the free internet data. Looking into the next respondent's answer, he/she said differently from the previous respondent.

The three responses above proved that Moodle and Facebook are prominent in the activity of retrieving information amongst students of UPNM. Respondents feel that both platforms are easy to use, but most importantly more respondents chose Moodle over Facebook as they claimed it easier to use the Moodle compared Facebook. Moodle for them is much easier to access since it is in an app form. However, there are some of them who thought Facebook is easier to access and also one or two of them agreed that both of the platforms are easy to use and access.

No Distraction

The responses in this theme indicated that respondents thought Moodle (LMS) and Facebook (Social Media) have no distraction to do the activity of retrieving information. The theme "no distraction" are categorised from the responses collected. The best responses were picked and explained below.

"Moodle is simple and fast. Facebook is distracting, uses a lot of internet data, and so many advertisements on Facebook." (Respondent 35)

Respondent 35 stated that using Moodle for retrieving information was easier as Moodle's feature is simple and fast. For him, comparing to Facebook, Moodle is not distracting and also if using Facebook to retrieve information, it requires a lot of internet data. He also stated that Facebook contains many advertisements which can cause distraction. The next respondent has almost the same thought about Moodle.

"Moodle is a formal system via the University's platform. Nice arrangements for notes. Does not intercept with social media." (Respondent 93)

According to Respondent 93, Moodle is a formal system in which it is connected to university platform. To the respondents, the Moodle has a nice feature in arranging the course notes. This resulted in easing the users of the Moodle to search for the notes. Moodle also does not intercept with social media, where it does disturb the respondents in searching for academic information. The next respondent supported what has been stated earlier.

"The information that I wanted in Moodle, is in sequence according to the topic and week. It is more organised and private for the students of the course. It is easy to access and you will not get distracted with other things compared to Facebook." (Respondent 95)

Respondent 95 said that Moodle has the extra advantage which the information that they want are already arranged according to topic and the week of study. He also mentioned that the feature on the Moodle where the information is more organised and private for the student to access the information. Lastly, according to Respondent 95, Moodle is an easy platform to access and he/she did not get distracted with other things compared to Facebook.

The three responses stated earlier clearly proved that Moodle (LMS) is prominent in the activity of retrieving information amongst students of NDUM. The Moodle platform is the most chosen way of retrieving information by the respondents. For them, using Moodle as the platform to retrieve information is good as they will not face any distraction compared to Facebook as the latter is specially made for the purpose of socialising. Students are distracted

due to the unnecessary information in Facebook compared to Moodle, where all the information are academic only.

Academically Friendly

The responses categorised in this “academically friendly” theme indicated that respondents think that both Moodle (LMS) and Facebook (Social Media) are academically friendly platforms that eased the process of information retrieval. This is because the main purpose of the platform is to offer academic information. Thus, most of the respondents found that the better platform to retrieve information is Moodle.

“I do prefer Moodle for information retrieval because I do not have a Facebook account. I made Facebook account just for academic purpose at first. For me, Moodle is more suitable to learn or to retrieve information because it does not have any advertisements and more efficient.” (Respondent 17)

Respondent 17 wrote that he prefers Moodle for information retrieval because he does not have a Facebook account. He also mentioned that the Facebook account that he made is for academic purpose only. But personally, Respondent 17 thinks that Moodle is the most suitable platform to learn and retrieve information because it does not have any advertisements and more efficient.

“Information on Moodle is directly from course lecturer. It is easier to access from it because the lecturer has put some links on there and it makes the students easy to reach the information. Even though sometimes Moodle cannot be opened because of several factors, it is still a good medium that helps the students know where to go when they need academic information.” (Respondent 2)

Respondents 24 wrote that the Moodle has information which is directly from the lecturer. He also mentioned that using the Moodle is easier to access because the lecturer has put the links there and it made it easier for students to reach the information. Plus, the respondents mentioned that even though Moodle is hard to access sometimes, it is still the best medium in helping the student to retrieve all the information needed. This statement is supported by next respondent.

“Although I think both platforms have their very own advantages and disadvantages, I prefer using Moodle as a medium of information retrieval. The reason is, it is purely academic – it is not mixed up with my private stuff, the user interface can be easily understood, and lastly, I can obtain information for every subject.” (Respondent 31)

According to Respondent 31, both platforms Moodle and Facebook have good and bad when using them. Most importantly, he preferred Moodle platform as a medium to retrieve information because Moodle is much more or purely academic where it does not mix with other things such as business listings or social chats. Lastly, the respondent stated that he could retrieve information for every subject easily.

According to the three themes which emerged from the above, Moodle is preferable than Social Media as it is seen as easier to access, less distraction and more academically friendly.

Discussion

Findings showed that respondents preferred Moodle (LMS) over Facebook (SM) in all aspects: getting information on syllabus and course assessment, retrieving course notes, announcement,

assignments, receiving information through chats, and receiving reinforcement activities using links to videos. Retrieving course notes and assignments have the highest percentages while receiving information through chats has almost the same percentage.

This supports that Moodle is the electronic media which is already accepted as the media for academic where it involves more cognitive processes which induces maximum participation and interest students more. Using Moodle, both the lecturer and students have the ability and skills in planning, organising, managing, and controlling the software to ensure its effectiveness (Sumarwati et al., 2020; Sobral & Peci, 2018)

On the other hand, students do like getting information from Facebook especially in retrieving information through chats. This supports that even as a Social Media, a lecturer can embed educational content in informal learning contexts such as in Facebook. This also demonstrates students' willingness to use Facebook for educational purposes alongside for social purposes. Even Facebook is more used for communication; it can be utilised to communicate knowledge hence strengthened the notion what we can do with the media to disseminate knowledge, especially when we are aware of that Facebook is the biggest social network worldwide with roughly 2.89 billion monthly active users in 2021, 29% between the ages 13-24 years old.

Conclusion and Recommendations

In conclusion, the responses stated earlier clearly proved that Moodle (LMS) is a more prominent activity of retrieving information amongst students of NDUM. Moodle being the most chosen platform which is said to be “academically” friendly. Respondents mentioned that Moodle provides more academic information that they need as students. The features of Moodle also made the process of retrieving information easier. The thematic analysis of this study seek preference for information retrieval. The themes that emerged from extensive reading of the responses are “easy to access”, “no distraction” and “academically friendly”. Moodle is easier to be accessed, has lesser distraction, and academically friendly; and is seen as purely academic. Even so, one should not dismiss the existing “technology-enhanced learning” support offered by Social Media such as Facebook. However, research on the phenomena at hand needs to increase in both depth and breadth.

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ROLE STRESSORS AND BURNOUT TOWARDS ORGANIZATIONAL COMMITMENT AMONG PUBLIC SERVANTS AT KUALA LUMPUR CITY COUNCIL: JOB SATISFACTION AS MEDIATOR.

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Abstract: *The aim of this study is to examine the relationship between role stressors (RC) include role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) mediated by job satisfaction (JS) among public servant at Kuala Lumpur Council Hall (DBKL). The theoretical model is based on the Social Exchange Theory (SET) and Social Learning Theory (SLT). To answer the research questions, nine hypotheses were formulated. They are, there is a significant relationship between role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) and there is a significant relationship between role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) mediated by job satisfaction and the hypothesis number nine is there is a significant relationship between job satisfaction and organizational commitment. Self-administrated questionnaires were distributed to public servants in DBKL. A total of 375 people responded in this study. This study utilized the SPSS 24 to establish validity and reliability of measurement model and test the relationships. The results show a positive and significant relationship between role stressors and organizational commitment mediated by job satisfaction as a means of reaching the study objectives. The result of this study also provides a better insight for academicians, government of Malaysia, DBKL and new knowledge to further understand the effects of roles stressors and organizational commitment mediated by job satisfaction at DBKL. The study provides empirical evidence for theoretical relationship hypothesized in the research framework and also adds to knowledge on the importance of role stressors. The study is only confined in DBKL, Wilayah Persekutuan Kuala Lumpur. It is recommended that future research should also include other Council state(s) in Malaysia.*

Keywords: *Role Stressor, Role Conflict, Role Ambiguity, Role Overload, and Burnout.*

Introduction

The public servants have been subjected to deep changes characterized by organizational commitment which were affected by the role of stressor and burnout. According to scholars, organizational commitment is related to the public servants' psychological attachment with their organizations (Mete, Sökmen & Biyik, 2016). Furthermore, it could also affect their job satisfaction such as turnover, behavior, and performance. János Bertók's (2000) studies also show that politicians and officials have to deal with the issue of public servants' organizational commitments. Organizations have been trying to get more compliance and conformity from public servants, and they have tried to get personnel to be more dedicated to the organization

through creating cooperation (Jalal Hanaysha, 2016). In public-sector management literature, techniques to minimize stressors and burnout are the result of an increased emphasis on organizational commitment (Thomas et al., 1998). For example, a study among hospital workers showed that poor organizational commitment leads to burnout. This study is to examine the relationship between role stressors (RC) include role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) mediated by job satisfaction (JS) among public servant at Kuala Lumpur Council Hall (DBKL). The researcher did the study at Kuala Lumpur City Council (DBKL) due to the greater number of public servants in Kuala Lumpur compared to other government sectors. In this study, researcher adapt the theoretical model is based on the Social Exchange Theory (SET) and Social Learning Theory (SLT) to proof the model and theory. To answer the research questions, nine hypotheses were formulated. They are, there is a significant relationship between role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) and there is a significant relationship between role conflict, role ambiguity, role overload, burnout, and organizational commitment (OC) mediated by job satisfaction and the hypothesis number nine is there is a significant relationship between job satisfaction and organizational commitment.

Literature Review

This study attempts to examine the extent of role stressors and burnout comprehensively compiled from several recent studies. The comprehensive role stressors and burnout are linked to job satisfaction, which is assessed integrally in two levels of the hierarchy of objectives; job satisfaction and organizational commitment. Job satisfaction is assigned as a mediating variable on the relationship between role stressors and burnout towards organizational commitment. This research aims to define the position of focus and burnout in Malaysia and to provide a more detailed understanding of the role of stressors and burnout.

Dependent Variable

Organizational Commitment

Organizational commitment (OC) in this study is defined by Meyer and Allen (1991) as a psychological situation that details the association of an employer with its organization while implying the decision of whether to stay on as a member of that organization or not. OC is also described by Cohen (2003) as a strength that ties an individual to a more relevant engagement that can achieve more than one target. In other words, it is called killing two birds with one stone. Arnold (2005) sees it as the qualified forte of a person's identity, participation as well as connection to an organization.

Organizational commitment (OC) is vital to organizations and researchers because of the need to preserve a strong labor force. Practitioners and researchers are intensely attracted to understand the causes and elements that influence an individual's choice to stay in an organization or leave (Bhatti, 2011). OC is a work-related way of behaving, deemed as imperative in this study, and has developed its reputation through the writings, based on organizational psychology and industrial perspectives (Cohen, 2003). Based on the literature done on the selected literature review as above, this study proposes an organizational commitment model which have role stressors (comprising of its multi-dimensions such as role conflict, role ambiguity, and role overload), and burnout.

Independent Variable

Role Stressors

The role stressors are stated as an array of anticipations about conduct regarding a place in a social structure. Expectations are the necessities or boundaries attributed to the role via the workers in charge of satisfying a position or by those related to the rank or title and merely inflicted with related thoughts (Rizzo et al., 1970).

Role Conflict

Role conflict as described by Judeh (2011) arises at a condition when two people are affected by dissimilar opinions concerning their effort after contradictory stresses and hopes when doing so will lead to dissenting choices. On the other hand sees role conflict equally to a condition when a role holder arrives at a dilemma by contradictory stresses from a superior regarding a task and additional stress to cope with people with whom he or she is unable to get along. Role conflict, according to Yongkang *et al.*, (2014) occurs the minute people must confront conflicting role expectancies with regards to their task.

Role Ambiguity

Role ambiguity was found to be the sturdiest reason to the work-family disagreement as discussed by Ryan, Ma, and Ku (2009) as well as the unwanted effect on organizational commitment and job satisfaction (Zhu, 2013).

Role Overload

Role overload is often regarded as a mode of conflict among inter-senders, where an individual is required to achieve the demands of various role senders (Jones et al., 2007). It is the level of work pressure to them because of the numerous duties and responsibilities. Role overload in the workplace might cause physiological and psychological tension which disturbs the physical and mental health of involved public servants (Jones et al., 2007). Negative effects of role overload are found on organizational commitment and job satisfaction that leads to increased turnover intention (Griffin et al., 2010; Pearson, 2005; Jones et al., 2007). Role overload is also associated with low performance, absenteeism, low enthusiasm, low organizational loyalty, and low overall organizational profitability (Jones et al., 2007; Glazer & Kruse, 2008; Qureshi et al., 2011; Shaikh, Bhutto & Maitlo, 2012).

Burnout

Burnout is significant at any rate for four fundamental reasons. To begin with, burnout influences the staff part's confidence and mental prosperity. Second, burnout appears to influence the nature of care and treatment given to customers. Third, burnout may affect managerial work. Lastly, burnout is significant in network settings since it enables network parental figures to forestall work pressure and hence advances network psychological well-being (Cherniss, 1980). To sum things up, while examining the idea of burnout, factors that should be considered are: (i) the individual attributes of the supplier (specialist), (ii) the activity setting, as far as supervisory and companion support just as organization rules and approaches and (iii) the real work with singular customers.

Mediator

Job Satisfaction

Job satisfaction has also been an apprehension amongst organizational behaviorists because job satisfaction has always been positively connected with productivity but negatively

connected with nonattendance in the workplace (Lo Presti, 2013). Job satisfaction has been enacted as a vital role when taking into consideration the effectiveness of an employee's operation and accomplishment (Shaikh *et al.*, 2012). According to Chiboiwa, Chipunza, and Samuel (2011), job satisfaction is the positive emotional state or pleasure developed on or after an assessment of the job experiences. Job satisfaction has received significant attention from many quarters because it was found to predict relevant workplace outcome variables (Kuo, 2015).

Theoretical Framework

Figure 2.3 Research Framework for the study showed as below:



Figure 2.3: Research Framework for the Study

Underpinned theory

This research's propositioned framework takes place or is pinned based on the Social Exchange Theory. The first pinned theory which is the Social Exchange Theory (SET) highlights the socio-emotional aspects between employee and organization; for example, the emotional state of obligation and belief, as well as that human relations and dealings, can be abstracted as business transactions. People trade resources with the assumption of gaining profits from these transactions. Reciprocity or mutual benefit is seen as the key element of this trade relationship in which both parties exchange resources.

Hypothesis Development

Based on previous and completed research concerning the association of role conflict and organizational commitment, both findings are mixed and inconclusive. Therefore, further examination in the context of public servants in the governmental organization is warranted. Thus, the following hypothesis is posited:

A similar argument is given by Duzie (2012) who believes that role conflict might lead to a situation of a thorough examination and inquiry to correct the exposed weaknesses, thereby steering to improved results than the usual situations and modernization and creativeness. Quaratulain *et al.*, (2013) also find that the association between job satisfaction and role conflict is of no consequence.

H1: There is a significant relationship between role conflict and organizational commitment among public servants' in public service organizations.

Past researchers have explored, examined, and studied the relationship between role ambiguity and organizational commitment. Mishra and Shukla (2012) discover considerable connection linking organizational commitment and role ambiguity among staff that is serving various public and private sectors; Alipour and Monfared (2015) see meaningful association concerning commitment and role ambiguity; while Yousef's (2002) study discovers that organizational commitment is straightforwardly and negatively influenced by role ambiguity.

H2: There is a significant relationship between role ambiguity and organizational commitment among public servants' in public service organizations.

Jones et al., (2005) also find the negative consequence of role overload on organizational commitment and job satisfaction which leads to an increasing in turnover intention, while Pearson (2005) sees a negative correlation with leisure satisfaction, psychological health, and job satisfaction.

H3: There is a significant relationship between role overload and organizational commitment among public servants' in public service organizations.

There are many contributing variables to burnout. Tamini and Kord (2011) led an examination to explore the connection between work burnout, life, and occupation fulfillment. Khamisa et al., (2015) examined the connection between various factors, for example, work pressure, work fulfillment, work burnout, and general wellbeing of attendants in organizations.

H4: There is a significant relationship between Burnout and Organizational Commitment.

Based on these findings as previous study, job satisfaction was treated as a probable mediator for a commitment linked to research. However, no empirical research has been discovered to examine the mediating role of job satisfaction concerning organizational commitment among public servants' in public service organizations. This H5, H6 and H7 are formulated relationship between variables and mediate by job satisfaction.

H5: Job satisfaction mediates the relationship between role conflict and organizational commitment among public servants' in public service organizations.

H6: Job satisfaction mediates the relationship between role ambiguity and organizational commitment among public servants' in public service organizations.

H7: Job satisfaction mediates the relationship between role overload and organizational commitment among public servants' in public service organizations among public servants' in public service organizations.

Not much research is done in public service organizations. The relative lack of studies of burnout, organizational commitment, and job satisfaction relationship amongst public servants' in the public service organizations merits further attention. This H8 and H9 are formulated relationship between variables and mediate by job satisfaction.

H8: There is a significant and positive relationship between burnout, job satisfaction, and organizational commitment among public servants in public service organizations.

H9: There is a significant and positive relationship between job satisfaction and organizational commitment among public servants in public service organizations.

Research Methods

Data Collection and Sample Selection

This study is use simple random sampling method to collect the data among public servant. An example of a service survey might involve waiting at the door of a government and associated departments and searching for public officials to answer questions. This study is known as a set study or period sample. The selection approach does not contain additional parameters such that applicants are accessible and enthusiastic. As mentioned, the Kuala Lumpur City Council includes the intended community of this study.

Measurement of Variables and Instrument

Descriptive Statistics

About three hundred and eighty-nine (389) of the total sample of nine thousand three hundred and fourteen (9314) public servants within DBKL organizations was taken. This represents about 3.86 percent of the response rate. The profile of the respondents was analyzed on various characteristics of the sample. Descriptive analysis showed 53.5 percent of responders were female, while the rest were male. DBKL can consider ensuring that its personnel are equally balanced between men and women. The respondents' demographics are divided into two groups. The first half of the respondents are 20 to 30 years old, while the other half ranges from 30 to 40 years old. This information suggests that workers between the ages of 20 and 30 are more likely to take chances and complete their activities with a great deal of enthusiasm and motivation. For 52.4 percent of the respondents, their working duration fell in the 0- to 5-year range, 17.5 percent worked 6 to 10 years, and 30.1 percent worked more than 10 years. Most of the responses are found among the ranks of supervisors. Respondents with SPM constitute about 36.4 percent of the total respondents. The Diploma educational levels made up about 32.9 percent being the second-highest educational level among the respondents.

Multiple Regression Analysis

The first discovery was that role stressors (role conflict, role ambiguity, and role overload) are positively related to burnout and job satisfaction, and that job satisfaction is connected to organizational commitment. These five characteristics which are role conflict, role ambiguity, role overload, burnout, and job satisfaction are enable public servants to strengthen their organizational commitment, and their contributions to the success of the DBKL have been found. In addition, positive associations are shown between role conflict, role ambiguity, and role overload, with job satisfaction. Lastly, job satisfaction can affect organizational commitment by mediating the interaction between role conflict, role ambiguity, role overload, and burnout.

The empirical study found that role conflict, role ambiguity, role overload, burnout, and job satisfaction have a substantial impact on organizational commitment when choosing the answers to the research questions. This hypothesis appears to support all the relationships that have been theorized under the research questions.

Finding and Conclusion

DBKL city council organization environment is very difficult to sustain in this competitive world due to the Covid-19 pandemic. Therefore, higher-ranked staff or officers needs to always structure new strategy and revise organizations objectives time to time according to the present economic situations. The reason for these actions is to keep up with government rules and regulations with the best practices as public servants. Moreover, consider including any moderator that may be able to provide a more detailed explanation of the phenomenon. As the activation of the organization involves both internal and external influences, it may be argued that both mediating and moderating variables should be taken into account. The inclusion of these members may add value to the research and broaden the overall understanding of the DBKL city council members.

Scope and Limitations of the study

The research focuses on the explicit effects of role ambiguity, role conflict, role overload, burnout including the mediating effects of job satisfaction on the organizational commitment by public servants, particularly in Malaysia's city council governmental organizations. This research studies the mediating impact of job satisfaction on the relationships linking to organizational commitment, burnout, role ambiguity, role conflict, and role overload. Therefore, the evaluation and review of the chosen public service organizations will be constrained to the subsequent variables of research; job satisfaction, burnout, role ambiguity, role conflict, role overload, and organizational commitment. Besides that, this study is restricted to public service organizations in Malaysia. Particularly, in Kuala Lumpur City Council following the post general elections and which is currently facing challenges of Covid-19 pandemic.

Significance of the study

This research is to identify some important reasons for public servants leaving an organization. Thus, may assist Kuala Lumpur City Council in Malaysia, the governments around the world, and related agencies to enhance their understanding of the crucial relationship between role stressor and burnout in organizations mediated by job satisfaction. Subsequently, strategies can be generated for better policies while managing their commitment and organizational behavior efficiency issues. These studies also contribute and develop new knowledge on public servants policy, particularly in the city council's public servants. Passion in attracting the public servants to pursue their commitment or involvement through governmental organizations is important because the public servants realize that this role stressor, burnout, and job satisfaction might be able to increase the control, coordination, knowledge, competitiveness, development, and skills of their human capital.

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FINANCIAL RATIO ANALYSIS ON NL LOGISTICS SDN BHD: A CASE STUDY

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Abstract: *The evaluation of financial performance and soundness is crucial for every company since it provides basic guidelines for interpreting the firm's strengths and challenges compared to its industry rivals. This paper is a small attempt to study the ratio analysis involving evaluation for the financial statements' helpful interpretation. This research evaluates the NL Logistics Sdn Bhd (NL) using financial ratios analysis. The information is derived from the company's financial statements during four years. The survey found that NL is well-positioned in its liquidity and activity ratios via its managerial efficiency and reputation in the logistics business, which it has enjoyed throughout the previous four years.*

Keywords: *Ratio, Liquidity Ratio, and Activity Ratio*

Introduction

A firm's financial stability is related to its capacity to profit, raise the value of invested capital, and repay both short- and long-term responsibilities. Financial performance is largely evaluated using several methods of financial analysis. The chosen technique is primarily impacted by the goal of usage, time constraints, information resources, and the level of algorithm development. The goal is to reach the desired degree of complexity in analysing the company and its operations.

A ratio is used as a benchmark for analysing a firm's financial position and performance in financial analysis. Ratios aid in summarising enormous amounts of financial data and the development of qualitative judgments about a firm's financial performance. Ratio analysis entails comparisons to provide a meaningful explanation for the financial statement. A single ratio does not tell whether a situation is favourable or unfavourable. This study was analysed the four-year ratios namely 2015, 2016, 2017, and 2018. As such, it is compared in this article to:

- Past ratios, i.e. ratios computed from the financial statements of a comparable firm in the past.
- Projected ratios, i.e., ratios calculated using the same firm's predictable, Performa financial statements.

Therefore, Liquidity ratios and efficiency ratios have been used to assess a firm's capacity to satisfy current commitments and competency in using its assets, respectively. The study is precisely based on the requirement for ascertainment and measurement and an accurate assessment of NL Logistics Sdn Bhd's existing situation. Ratio analysis is used to evaluate the performance of NL Logistics Sdn Bhd. Therefore, the research's objective is to ascertain the liquidity situation, and activities ratio the influence of their factors. Additionally, the study will

determine NL Logistics Sdn Bhd's capacity to repay its creditors. Financial actions are analysed using ratio analysis, enabling relevant comparisons between two determinants or activities.

Background NL Logistics Sdn Bhd

NL Logistics Sdn Bhd was founded in 2001 by a group of skilled individuals that want to be entrepreneurs in their sector. Therefore, the crucial aspects of guaranteeing their pledge's complete implementation are dynamism and professionalism. The firm now works in Indonesia and Dubai and specialises in various services, including domestic and international freight forwarding, household goods relocation, cargo handling, marine-related products and equipment, and general contracting. Since its inception, the corporation has developed steadily via a series of mergers and acquisitions.

Literature Review

Financial Ratio

Ratio analysis, often known as financial ratios, determines an organisation's profitability and financial situation (Rehman, et al., 2015). Customers, management, business owners, suppliers, rivals, and other relevant stakeholders are often involved in the ratio analysis process (AlEisaei and Nobanee, 2020). These people have been brought in to use their financial statements in their assessments. Horrigan (1968) claims that ratio analysis has been there from the beginning, with the fundamental cause for its development being the employment of the analysis in properties.

In recent years, ratio analysis has become a standard approach for examining financial accounts (Horrigan, 1968). The fundamental reason for applying ratio analysis in the nineteenth century was to comprehend the power of financial institutions and the change in management of the organisation. This suggests that ratio analysis helped evaluate the firm's credit and management approaches to debt repayment. In 19th-century research, for example, it was discovered that successful businesses had more excellent ratios than failing businesses (Rehman, et al., 2015).

According to another research, the link between financial ratios and the ability to pay reveals the outcomes of ratio analysis and often influences an organisation's borrowing capacity (Moore, Atkinson, & Ku-berg, 1961). Ratio analysis is fundamental in businesses since it may anticipate a company's downfall up to five years before it happens (Bint-Tariq and Noabnee, 2020). In this approach, ratio analysis is a critical tool in businesses since it can be used to assess debt and the likelihood of a firm's collapse soon (Al Dhaheri and Noabnee, 2020).

Data Analysis

Liquidity Ratio

Liquidity ratios are used to determine a firm's ability to fulfil its present commitments. It is vital to strike the proper balance between excessive liquidity and liquidity deficiency. A high degree of liquidity implies that a business's finances are not always tied to present assets. Whereas a lack of liquidity denotes a business's inability to satisfy its commitments as a result of a lack of appropriate liquidity. The following ratios were used to analyse NL Logistics Sdn Bhd's liquidity, efficiency and profitability in this case study:

Current Ratio

$$\text{Current Ratio} = \text{Current Asset} / \text{Current Liabilities}$$

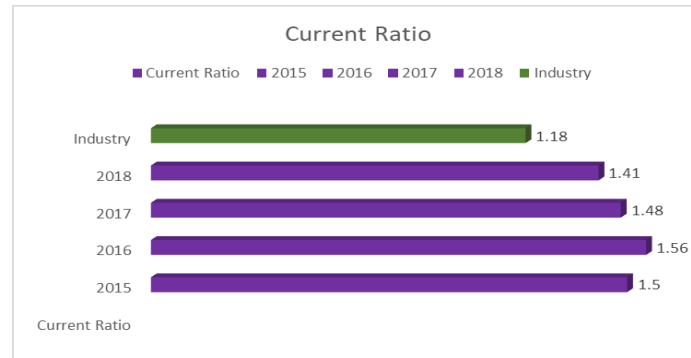


Figure 1: NL Logistics Current Ratio Graph

The current ratio is a metric that analyses its capacity to satisfy its short-term commitments and unanticipated cash needs. This is generated by dividing current assets by current liabilities. From the 4-year report, the firm has managed a solid current ratio, which signals its strong position to satisfy unpredicted cash needs. The most significant number was attained in 2016, which showed that NL Logistics Sdn Bhd could satisfy 98.4 per cent of its short-term commitments.

$$\text{Quick Ratio} = (\text{Current Asset} - \text{Prepaid Expenses}) / \text{Current Liabilities}$$

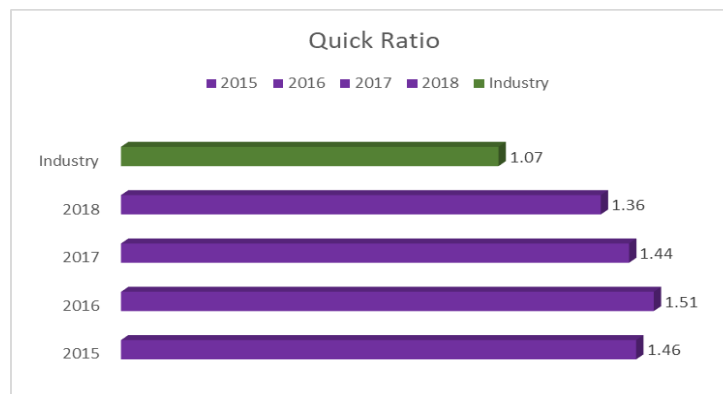


Figure 2: NL Logistics Quick Ratio Graph

The quick ratio measures how quickly cash and other current assets can be converted to cash and used to pay a company's short-term commitments. The lowest ratio was recorded in 2018, indicating that the company could only satisfy 1.36 per cent of its short-term commitments using cash and current assets. The company was in the best position in 2016 to convert cash and current assets into cash and pay off its cash needs. This demonstrates NL Logistics Sdn Bhd's favourable trajectory, indicating that it can effectively manage its liquidity at any time during the next four years while still fulfilling other corporate commitments.

Efficiency Ratio

Efficiency ratio measure how effectively the firm managing its assets in generating sale.

$$\text{Debtors Turnover} = \text{Receivables} / \text{Revenue} / (360 \text{ days})$$

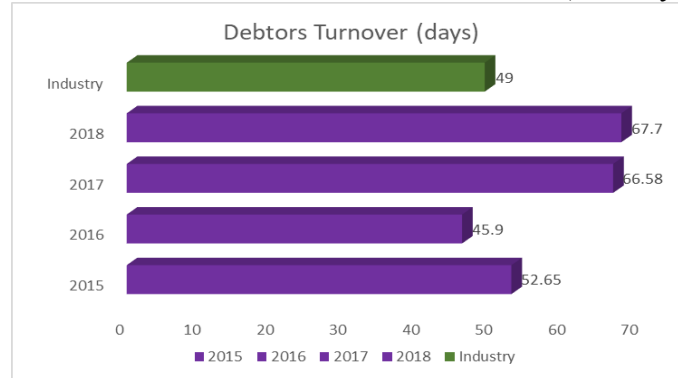


Figure 3: NL Logistics Debtor Turnover Graph

This is the average number of times a corporation collects its accounts receivables each year. The ratio is used to determine a company's capacity to effectively offer credit to its customers and collect cash from them. The company's receivables turnover percentage was lower in the first two years, but it developed aggressive collection strategies with time. Furthermore, the company's higher turnover in 2018 indicates that it benefited from a mix of active collection staff and a cautious lending strategy.

$$\text{Asset Turnover ratio} = \text{Sales} / \text{Average total asset}$$

The capacity of a business to generate an enormous volume of sales for a fixed amount of net assets is the most important metric of its operational success. Unused or underused assets increase the need for costly financing and maintenance and upkeep charges. The turnover of net assets is calculated by deducting sales from net assets.

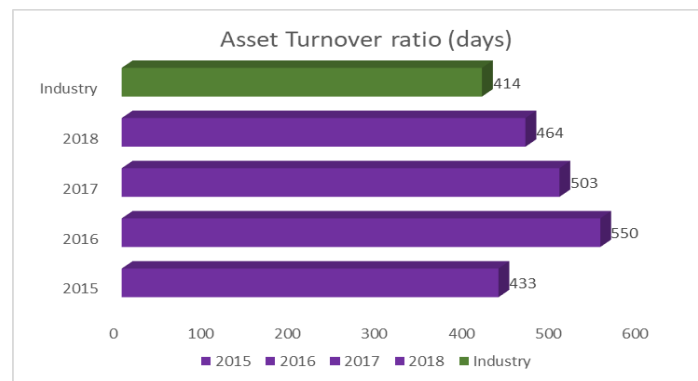


Figure 4: NL Logistics Asset Turnover Ratio Graph

This ratio is significant in industrialised companies with significant asset investments. Moreover, compared to the previous year, this ratio shows how effectively used assets are. NL Logistics net assets turnover is generating a higher volume of sales on 2016 (5.5 times) but in 2017 and 2018 it slowly decreases compare to previous years. NL Logistics Sdn Bhd could achieve net asset turnover of 4.64 on 2018 implies that it is producing RM4.64 sales for one ringgit of capital employed.

Findings and Conclusion

Based on an effort to gather data (both primary and secondary data) from various sources such as annual reports, books, and others from secondary data sources. The following are the results of this study and effort:

Liquidity Ratio

From the above calculation, this study can conclude that NL Logistics Sdn Bhd current ratio is higher than one, which is considered suitable for the company's capacity to pay off its debts. Therefore, it shows that the company will have no problem paying its current obligation and current liabilities.

NL Logistics Sdn Bhd quick ratio implies a company's capacity to pay back debts in the worst-case scenario. However, based on trend, it shows that the ratio has fallen in the year 2017, the company needs to manage their current liabilities well.

Activity Ratio

The debtor's turnover ratio for 2018 is 67.70, the highest compared to previous years. Likewise, the collection period has also increased, which is a sign that the company is having problems being paid for service rendered. This ratio also could imply that the company was operating more on a cash basis. The shorter the average collection duration, the higher the debtor quality since a short collection period signals fast payment by borrowers. Although NL Logistics Sdn Bhd has a zero debt credit policy, it extends credit up to 90 days via a channel financing facility provided by a financial institution. Compared to the typical collection duration, this looks to be a good collection and credit efficiency.

The capacity of NL Logistics Sdn Bhd to generate a high number of sales with a bit of quantity of net assets is the most critical feature of its operational success.

NL Logistics Sdn Bhd's asset turnover grew in 2016 but decreased in 2017 compared to the prior year.

A high fixed turnover ratio implies that fixed assets are efficiently used to generate revenue. NL Logistics Sdn Bhd is here to ensure it is done effectively.

Conclusion

The examination of financial ratios provides a genuine picture of a company's financial health and soundness. NL Logistics Sdn Bhd has achieved efficiency in all of its activities during the last four years, despite volatility in its financial statement and the economy in general. The efficiency results reflect how far the firm has progressed. The company also improved its financial management by shortening the time it takes for debtors to be paid and managing their overall asset investment concerning sales.

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KNOWLEDGE, ATTITUDE AND PRACTICE OF REPEATEDLY HEATED COOKING OIL (RHCO) AMONG FOOD HANDLERS

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Abstract: *Repeatedly heated cooking oil (RHCO) used in preparation of fried food is a common practice among food handlers in Malaysia despite the detrimental health implications it has on the human body. Hence, this study was initiated to investigate food handlers' level of knowledge, attitude and practice of using RHCO among food courts' food handlers in Shah Alam. In addition, samples of used cooking oil were collected from food courts to investigate the quality. This cross-sectional study collected data from respondents (n=130) through face-to-face interview using a structured questionnaire between March to July 2021. Data collected undergone descriptive and correlational analysis using SPSS. Fifty samples of respondents' used cooking oils were simultaneously collected to test their quality using established cooking oil quality tests, Total Polar Compound (TPC) and Acid Value (AV) analyses. Tests were used to detect cooking oil quality deterioration, using rapid test kits Testo 270 and 3M Long-range shortening monitor (LRSM) respectively. The results obtained revealed that the majority of the respondents' knowledge on effects of RHCO practice towards the quality of food they cook, as well as, their knowledge on the effect of RCHO towards the human health showed to be at moderate (60.8%). Most respondents were found to have low level of attitude (53.8%) on concerns of RHCO usage in preparing fried food. It was also found that respondents had moderate level of practice (49.2%) on using RHCO for frying. Nevertheless, TPC and AV analyses showed that collected samples were generally safe to be consumed as all cooking oil samples' results were below the degradation limit. Hence, enforcement on awareness needs to be taken by the governmental food authorities to address this issue and ensure safe consumption of fried foods by consumers is critical*

Keywords: *Repeatedly Heated Cooking Oil, Food Safety, Food courts, Malaysia*

Introduction Practice of Repeatedly Heated Cooking Oil

The foodservice industry in developing nations throughout the world are enjoying an increase in patronage (Alimi, 2016). This is contributed to the expansion of urban population growth and the growing trend of eating out (Alimi, 2016; Azman, Shahrul, Chan, Noorhazliza, Khairunnisak, Azlina, Qodriyah, Kamisah & Jaarin, 2012; Shahidan, 2015). Similarly, this trend has also been observed to be growing in Malaysia (Ahmad, 2015). Malaysia is a

developing country, growing in population. As rural migration and expansion of urban boundaries with formation of new townships rise, people's eating behaviour changes, along with their lifestyles. In Malaysia today, food varieties offered are plentiful and easily accessible. Thus, motivates the urban population to opt for takeaways and home deliveries. Factors such as dual income parents in urban households contributes to the trend due to the reduced time for preparing meals at home (Ali & Abdullah, 2012). Rapid economic growth in the urban areas has enable the urban populations to spend more on food which stimulates a rise in the need for instant meals (Ali & Abdullah, 2012; Alimi, 2016). Data collected by Poulain, Laporte, Smith and Tibere (2015) showed 47.7% of Malaysian meals are from eating out, with 61.6% Malaysians having at least one meal purchased daily. However, relying on purchased meals can lead to health risks (Ali & Abdullah, 2012).

The popularity of eating out and home deliveries in urban household has risen concerns on Malaysian eating habits, particularly towards the quality of food consumed and potential health risks (Ali & Abdullah, 2012). Khan (2018) notes that the food culture in Malaysia is captivated with deep fried foods. Deep fried food has appealing sensory characteristics and is cheap. These attributes have made deep frying a prevalent cooking method in the Malaysian food industry. However, according to Aziz, Elias, & Sabran (2018) and Kalogianni et al. (2016), it is a common practice among Malaysian to reheat their frying oil repeatedly for several days to cut cost. A number of previous studies found that a majority of their subjects admitted to practising RHCO (Aziz et al., 2018; Azman et al., 2015; Phiri, Mumba, & Mangwera, 2006). When cooking oil is repeatedly heated, the cooking oil goes through several chemical reactions that causes it to breakdown and form harmful compounds (Perumalla & Subramanyam, 2016). These compounds accumulate and are eventually absorbed into fried product (Orthofer & List, 2007a). During frying, cooking oil is often exposed to high temperatures for long periods of time. Consequently, accumulated toxic compound formed are absorbed by fried product and consumed. Consumption of repeatedly heating cooking oil (RHCO) has been associated with increased risk of developing hypertension and various types of cancer (Ganesan, Sukalingam, & Xu, 2019; Leong, Ng, Jaarin, & Mustafa, 2015; Perumalla & Subramanyam, 2016). These harmful compounds are linked to have genotoxic, mutagenic and carcinogenic potential if regularly consumed (Dung, Wu, & Yen, 2006; Ganesan et al., 2019; Metayer et al., 2002).

Lack of regulation in Malaysian Food Act and Regulation for cooking oil quality means that usage of RHCO is not prohibited and changing of old batch of used cooking oil with a new one is entirely up to food handlers (Sivananthan, Elamaran, Jasmin, & Kushha, 2013). A study found food outlet handlers relied on late signs of oil degradation to change used cooking oil (Morley-john, Swinburn, Metcalf, & Wright, 2002). Despite the overwhelming negative effects of practicing RHCO. Aziz, Elias, & Sabran (2018) and Ganesan et al. (2019) states that it is a common practice among Malaysian to reheat cooking oil repeatedly for several days to cut back expenses. Many studies have been done to evaluate the health risk of RHCO, but only limited number of studies have been done on examining the knowledge, attitude and practice of RHCO among food handlers.

Generally, there are not many researches done on the extent of cooking oil degradation and RHCO knowledge, attitude and practice among food court food handlers. This denotes that there is a critical need to study food court food handlers' KAP on usage of RHCO. Therefore, this study is initiated to provide data on the level of food court food handlers' KAP of using RHCO for frying. Local studies on RHCO awareness by Aziz et al. (2018) and Azman et al. (2015) have found a majority of their subjects admitted to practising RHCO. The study found that despite many Malaysians know that usage of RHCO is substandard, they lack the

knowledge on exactly why practicing RHCO is harmful. Therefore, knowledge, attitude and practice (KAP) survey modal is a helpful tool that reveal a community's understandings, perceptions and habits towards health-related issues (World Health Organization, 2008). Therefore, in this study, KAP survey model is used to investigate the level of KAP among food handlers with regards to cooking oil quality used by food court food handlers in Shah Alam.

Cooking oil quality can be indicated by the content of degradation properties accumulated in used cooking oil. Along with KAP modal, this study will also evaluate the quality of in-use cooking oil from food courts. High total polar compound (TPC) and free fatty acid (FFA) value indicates that the quality of cooking oil is harmful for consumption. Chemical parameters can be used to determine the level of polar compound in cooking oil to assess the extent of oil degradation. According to Chen, Chiu, Cheng, Hsu, & Kuo, (2013) and Kalogianni et al. (2016), the TPC and AV tests are prominent parameters to determine cooking oil's quality. Collection actual quality of cooking oil used by food court food handlers may provide insights on the quality of cooking oil used by food operators as questionnaires are generally self-reporting.

Literature Review

Definition Repeatedly Heated Cooking Oil (RHCO)

According to Malaysian Standard 682:2004 Cooking Oils-Specification (First Revision), cooking oil is defined as triacylglycerol of vegetable origin, where the oil shall be wholesome and free from extraneous matter (Department of Standards Malaysia). Cooking consists largely of triglyceride simple compounds, less complex compared to proteins and carbohydrates but it is a vital part of a healthy diet (Erickson, 2007). The cooking oil provides the human body with reserves of energy, of around 37kJ (9 kcal) per gram, for daily activities, heat insulation and essential fatty acid. According to Leong et al. (2015) and Syed (2016), edible oil also functions as fat soluble vitamin carriers of vitamin A, D, E and K. Vegetable oil is considered as a healthier alternative to animal fat due to its higher unsaturated fatty acids and cholesterol-free properties (Leong et al., 2015). Syed (2016) states that 79 percent of edible oil consumed worldwide are vegetable oil. The largest source of vegetable oil is from the seeds of plants, which include palm oil, soybean oil, sunflower seed oil, palm kernel oil, peanut oil, cottonseed oil, coconut oil, olive oil and canola oil (Statista, 2020).

During frying, the cooking oil is continuously exposed to high temperature, air and moisture. This leads to a chain of chemical reactions which alter the cooking oil's composition to produce oxidative products, which accelerate the deterioration of cooking oil (Kamisah, Shamil, Nabillah, Kong, Hamizah, Qodriyah, Azlina, Azman & Jaarin, 2012). When this cooking oil is used several times for frying, the cooking oil is referred to RHCO (Azman et al., 2015; Jaarin & Kamisah, 2012). Cooking oils are supposed to be discarded when their chemical and physical properties show adverse effect on the organoleptic properties of the fried food product. When cooking oil is reheated and reused for frying, oxidation and hydration process accelerates, causing cooking oil to deteriorate more rapidly (Leong et al., 2015). Wai (2007) supports this statement, stating that cooking oil deteriorates in quality and loses nutritive value with repeated frying.

Bhuiyan et al. (2016) stated that toxic compounds in cooking oil that has been repeatedly heated has implications to health, destroying vitamins, inhibiting enzymes and increasing risk of gastrointestinal irritations, as well as, cell mutations. Zahir, Rehana, Mehwish and Anjum (2014) stated that the practice of RHCO also produces lipid peroxidation products that cause oxidative degradation in cooking oil, leading to formation of toxic and carcinogenic compounds. Consumption of RHCO may lead to high incidence of genotoxic, mutagenic cells

and malignancies such as lung, breast, colorectal and prostate cancers (Srivastava, Singh, George, Bhui, & Shukla, 2010). A study by (Wai, 2006) concluded that, long-term consumption of heated vegetable oils containing polar compound of 25% has negative effects on growth, metabolism, and pregnancy outcome.

Repeatedly Heated Cooking Oil (RHCO) Usage in Malaysia

In 2011, the Malaysian Association of Standards Users (MASU) revealed a lab analysis for polar compound test and found 19 out of 64 cooking oil brands sold nationwide were tested and deemed unsafe for consumption. TPC content of these 19 cooking oil brands were found to be higher than the allowed limit of 25 %, set by the European Union international standards (The Star Newspaper, 2011). Cases like this raises questions on the safety of the cooking oil that Malaysian use. In Malaysia, palm oil is the most commonly used vegetable oils in the household and industry for deep frying purposes. The oil palm, *Elaeis guineensis*, originated from West Guinea, was brought to Malaya in the early 20th century (Hassim et al., 2020). Today, it has become a major commodity and industry in Malaysia. The popularity is mainly owed to Malaysia for being one of the world's largest producer and exporter of palm oil (Azman et al., 2012; Sivananthan et al., 2013).

Malaysia is the world's second-largest exporter of palm oil in terms of volume, after Indonesia (Hirshmann, 2021). Being widely available, thermally more stable and cheaper than most vegetable oil in the market increases its favourability to use in the food industry (Hassim et al., 2020). In 2020 and 2021, Malaysia's domestic consumption was around 3.63 million metric tons (Hirshmann, 2021). However, there is currently no standard guideline to determine the quality of cooking oil usage by food handlers in Malaysia (Aziz et al., 2018; Azman et al., 2012). The Malaysian Food Regulations 1985 have yet to have regulations on frying oil quality in the foodservice industry to monitor cooking oil usage of food handlers. Unlike food safety, which includes aspects of food handling and food processing, are addressed by specific food safety programmes such as GMP (Good Manufacturing Practices) and HACCP (Food Safety based on Hazard Analysis of Critical Control Point) (Asmawi et al., 2018). Hence, the frequency of how many times cooking oil is used by food handlers before being discarded is not regulated.

In Malaysia, fried food are imbedded in our food culture (Khan, 2018). Despite improved consumer awareness on dangers of fried food consumption, frying remains to be popular part in food preparation for the foodservice industry (Bordin et al., 2013). Azman et al. (2012) stated that Malaysians consume a substantial amount of fried food, as they are conveniently available almost anywhere, from informal business of food stalls by the roadside and night markets to the formal business of restaurants and food outlets. Similarly, Khan (2018) agreed that most part of the Malaysia's states are engrossed with deep fried food. Examples of deep fried food that can be observed in a typical Malaysian food all year round include banana fritters, fried tubers such fried sweet potato, yam or cassava fritters, fried jempit-jempit or cengkodok (traditional flour based fritters), keropok lekor, karipap, popia, fried fish cakes, fried sausages and other fried condiments that goes with Malaysian cuisine.

Considering how much of Malaysian meals involves fried food, Azman et al. (2012) stated that frying practice of food handlers may have significant influence on the general health of Malaysians population. However, a number of studies have reported that it is a common practice for Malaysians to repeatedly heat their cooking oil to cut back on expenses (Aziz et al., 2018; Azman et al., 2012, 2015; Jaarin & Kamisah, 2012). As mentioned, the practice of using RHCO is common in Malaysian households and food service businesses. In Malaysia, food handlers are found to practice RHCO repeatedly for days to cut cost (Aziz et al., 2018;

Azman et al., 2015; E. Kalogianni et al., 2016; Phiri et al., 2006) even though previous studies have pointed out various harmful effects of RHCO consumption and RHCO practice (Nayak et al., 2016; Perumalla & Subramanyam, 2016).

Health Risks of RHCO and Its Effect Toward Food Quality

Prolonged consumption of RHCO have been linked to promote health complications and the formation of harmful components in cooking oil (Zahir et al., 2014). Oxidative products such as hydroperoxide, short chain acid, ketones, alcohol and aldehydes accumulate as frying time lengthens, increasing the toxic compounds in cooking oil (Shahidan, 2015). These accumulated compounds are eventually absorbed into the fried food. During frying as much as 45 percent of the cooking oil can end up in in fried food product (Orthoefer & List, 2007b). When cooking oil is repeatedly reheated, these chemical reactions can extend the harmful effects (Ganesan et al., 2019). Repeatedly heating cooking oil affect stability of the cooking oil's compound by producing free radicals that may attach to healthy human cells, leading to promotion of health problems (Bhuiyan, Khan, Rahman & Chowdhury, 2016).

RHCO practice has many negative implications towards the quality of cooking oil, fried food products and fried food's nutritional value (Azman et al., 2015). Chemical reactions that occur during frying generates many chemical compounds that would eventually accumulate in the cooking oil, affecting physical properties cooking oil (E. Kalogianni, Karapantsios, & Miller, 2011). Heating cooking oil repeatedly accelerates formation of oxidized and polymerized lipid species in the cooking oil causing further cooking oil quality deterioration (Perumalla & Subramanyam, 2016). Oxidation causes triglyceride molecules in cooking oil to form unstable lipids which will polymerise and cause the darkening of cooking oil's colour and increase in its viscosity (Goswami, Bora, & Rathore, 2016).

Knowledge, Attitude and Practice of Malaysia Food Handlers Towards RHCO

According to Wan et. al (2016), "Knowledge" can be gained through education or experience whereby further understanding and facts are explored beyond the emotional experience. It is the combination of experience, judgment and skill by demonstrating an individual's ability to pursue, retain and use information attained. "Attitude" evaluates an individual's psychological predisposition to act on information based on their degree of favour or disfavour towards a subject, to predict one's behaviour (Wan et al., 2016). To be put simply, it is a mental state of readiness to respond to a situation. "Practice" is equated to action led by knowledge and the attitude of adherence to rules, to protect against possible problems (Badran, 1995). Therefore, practice can be viewed as an indicator of knowledge and attitude, working together. Knowledge is an important feature in any foodservice business venture.

Equipping food operators with proper guidelines and information on potential harm regarding RCO usage may encourage a more concerned attitude towards the practice of using RCO. According to Asmawi et al. (2018), food operators have demonstrated poor knowledge on food safety management and handling of food. Studies conducted by Asmawi et al. (2018), Azman et al. (2012) and Sivananthan et al. (2013) show Malaysian food operators still lack in knowledge of RCO usage. A survey conducted by Azman, et al. (2012) concluded that although Malaysian's food operators were largely aware that RCO practice was unhealthy, they did not understand exactly why. Attitude is an important factor in the enforcement of practice. A previous study by Azman et al. (2012) suggests attitude towards usage of RCO is influenced by the idea that degraded cooking oil effects the quality of fried food. The study found 37-night market operators who claimed to not use RCO perceived that RCO can heavily affect the quality and the physical attractiveness of fried food in terms of colour, texture and taste. In

another study, Aziz et al. (2018) claimed food operators still practised RCO to cut cost even though they were aware of the negative health effects of RCO. These studies also highlighted that although majority of the respondents had attended food safety training, on average, food operators' practice towards the usage of RCO is still poor. There have yet to be studies that focuses on food court food operators in Malaysia and their KAP towards usage of RHCO.

Indicating Cooking Oil Quality

Sensory and physical tests are generally relied on by food operators to assess the extent of cooking oil degradation, which usually includes foam and smoke formation, darkening of colour, viscosity and odour. However, using the naked eye is insufficient to determine the degradation of used cooking oil (Aziz et al., 2018). Hence, to evaluate the deterioration extent of cooking oil, parameters can be used to determine the concentration level of cooking oil's degraded products (Osawa, Gonçalves, Gumerato, & Mendes, 2012). In international regulations, two most widely used chemical parameter for oil quality are the TPC and AV (Chen et al., 2013). TPC and AV are the determined predominantly used in many international regulations worldwide to evaluate cooking oil quality (Chen et al., 2013; Kalogianni et al., 2016).

Methodology

This cross-sectional study was conducted throughout the months of April and May of 2021. The study population is a representative sample of 130 respondents who are of food court food handlers in Shah Alam. This study uses non-probability sampling. The inclusion criteria were food court food handlers who are aged 18 and above, premise must use frying as preparation method for their food and individuals who are directly involved handling cooking oil for deep frying. Food court food handlers were excluded if they did not satisfy all these criteria. Informed consent was obtained from all participating subjects.

Validated questionnaires were distributed face-to-face. Questions were divided into four parts.. The knowledge on the usage of RHCO was evaluated in the second part of the questionnaire. In this part, the respondents were asked their knowledge of RHCO, whether the quality of oil used for frying remains the same regardless of how many times the oil is reheated, whether there is loss of nutrients in the repeatedly heated cooking oil and whether consumption of food that was fried in RHCO is healthy and the health complication that can arise through consumption of such food. The attitude of usage of RHCO were evaluated in the third part of the questionnaire. In this part, respondents were asked on their believes and acceptance on the usage of RHCO. Practice was evaluated on the third section. Practice of food court food handlers handling of cooking oil during and after frying were questioned. On the last section, respondents were required to provide demographic data. The questionnaires were pre-tested on 10 food outlet operators in Shah Alam before the official survey was performed. All data collected was made anonymous, stored and controlled by the authors.

Collection of frying oil samples from food court food handlers were obtained from 50 food court premises in Shah Alam. The oils were collected before the food handlers start their business or during early operation hours. The volume of each oil sample is at least 500 ml and the oil collected from each food outlet was stored individually in different 600ml glass bottles and stored in a cooler box before taken into the laboratory and chilled until analysis. Determination of cooking oil quality was done using Total Polar Compound test using Testo270 and Acid Value test using Long-range shortening monitor (LRSM). Statistical analysis Data was analysed using SPSS software (version 21, SPSS Inc). Descriptive statistics, including frequencies and percentages, were calculated from the questionnaire. Correlation

analysis and mediating analysis were performed to determine the association between knowledge, attitude and practice regarding usage of RHCO.

Results

A total of 130 respondents consisting of food court food handlers took part in this study. Majority of the respondent (48.5%) are those aged between 31 to 40 years old, followed by respondents of 21 to 30 years old (31.5%) and 31 to 40 years old (48.5%). Slight majority of the respondents (59.2%) were females. The majority received secondary school education (48%) as their highest education. The majority of the respondents' educational level was up to secondary school (high school) level (56.0%). All of the food court food handlers claim to use palm oil for frying food (100%). For practice, 32 respondents (24.6%) had poor level of practice, 64 respondents (49.2%) had moderate level of practice and 34 respondents (26.2%) had high level of practice.

From the result of the correlation analysis, Knowledge ($r(130) = -0.148, p = 0.092$), was not significantly correlated toward Attitude. In addition, the analysis also indicated that Knowledge was not also correlated toward Practice ($r(130) = 0.039, p = -0.039$). The same scenario was also occurred for the relationship between Attitude and Practice. The analysis of the Pearson correlation analysis indicated that, Attitude ($r(130) = 0.105, p = 0.233$) was also not significantly correlated to Practice. Hence, this implies that, if one of the independent variables increasing or a better agreement in the average opinion, then the effect to dependent variable will be no effect.

Altogether 50 individual cooking oil samples were obtained from food court food premises in Shah Alam. The quality of cooking oil samples that were used by night market operators to fry food was determined by measuring the Total Polar Compound (TPC) and Acid Value (AV) of the sampled oils. The value of TPC were determined by using Testo270 tool while the value for AV were determined using LRSM. Based on the results, all of the cooking oil TPC value are below the upper limit of TPC which is 25% and that the average AV were significantly lower than 2.5%. Therefore, it is concluded that cooking oil samples collected are generally safe to be consumed.

Discussion

This study surveyed a representative sample of food court food handlers on their KAP regarding their usage of RHCO. Since Malaysians are fond of consuming purchased ready to eat meals, food court fried food might impact the health of Malaysians. From the study, it is found that all night market food outlet operators (100%) surveyed in this study used palm oil for frying. Palm oil are known to be used in the food industry due to its durability to withstand high heat and repeatedly heated compared to other types of oil such as soy oil as their composition are rich in monosaturated fatty acids (Azman et al., 2012). Therefore, palm oil has better resistance to oxidative changes during the process of repeated heating. This study supports the durability of palm olein based cooking oil to be used in frying in place of other types of cooking oil. Attributes of cooking oil such as high smoking point, long shelf life and stability contributes to delaying cooking oil quality deterioration in RHCO practice. Thus, making palm oil an excellent candidate for cooking oil, especially for usage frying high volume of products at a mass scale in foodservice industry.

Lack of standard guideline to measure the quality of cooking oil used by independent food handlers allows repeated usage of cooking oil before discarding used oil. This practice renders the oil to thermal oxidation and degradation. It is observed that for some of the food handlers do not reuse cooking oil due to the pressure from customers demanding good quality

fried food. RHCO affects fried food quality as food fried in RHCO causes fried food to give off unpleasant odour, darker colour and causes fried food to be too oily. Although the reason food handlers avoid usage of RHCO are not because of health, practice of RHCO are controlled to some extent due to this reason. Lack of scientific knowledge amongst food court food handlers on the real dangers of using RHCO are still concerning. Lack of knowledge on proper frying techniques such as temperature control and replenishing of cooking oil. The attitude of the food court food handlers is generally as long as the colour of the oil looks acceptable and no complaints are received on the quality of their fried food, it is alright to use RHCO.

Available data suggests that frying oils used in the preparation of fried food by food court food handlers in Shah Alam contain TPC and AV levels within safe limits. The stringent demand of consumers for good quality fried products necessitates the frying oil used to be discarded before they begin to impart obvious off-flavours to the fried foods. Overall, the evidence presented does not refute that these food courts' repeatedly-used deep frying oils may be regarded as generally safe.

Conclusion

The level of knowledge, attitude and practice of food court food handlers regarding RHCO in Shah Alam needs improvements. Since most of the food courts identified were under the authority of the local municipal, awareness should be implemented on the dangers of using RHCO towards health. Awareness campaign should also include guidelines and proper techniques to be used when handling high volume frying. Monitoring of cooking oil usage may also be issued using parameters such as TPC and AV. Rapid test kits such as Testo270 and LRSM affordable and are easy to use. Result time of analysis are also time saving and accurate. A follow up study is warranted in the knowledge of food court food handlers to observe changes in their RHCO practices.

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CABARAN PEMBELAJARAN BAHASA ARAB SEBAGAI BAHASA ASING PERINGKAT UNIVERSITI KETIKA PANDEMIK COVID-19

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Abstrak: *Isu pembelajaran dan pengajaran (P&P) bahasa Arab sentiasa relevan dari semasa ke semasa. Tambahan pula, dalam situasi suasana pembelajaran yang berbeza disebabkan pandemik COVID-19 yang melanda peringkat global termasuk Malaysia, terdapat perubahan dimensi penyesuaian dari pihak pelajar. Justeru, makalah ini bertujuan untuk menyelidik penerimaan pelajar terhadap pembelajaran secara dalam talian serta cabaran yang dihadapi pelajar dalam proses pembelajaran bahasa Arab. Kajian ini ialah kajian temu bual menggunakan platform maya dan direkod, seterusnya ditranskripsikan secara verbatim. Kajian pelbagai kes ini dianalisis secara tematik berdasarkan data tepu yang diperolehi. Kajian ini melibatkan pelajar dari pelbagai latar belakang jurusan yang mempelajari bahasa asing (Arab II) sebagai subjek teras Universiti Pertahanan Nasional Malaysia (UPNM). Berdasarkan dapatan kajian ini, pelajar pada mulanya tidak selesa dengan pembelajaran secara dalam talian yang menggunakan pelbagai platform disebabkan kekangan khusus. Menariknya, mereka mula menyesuaikan diri disebabkan beberapa faktor. Selain itu, cabaran yang dihadapi adalah pelbagai dan masing-masing cuba mengatasi cabaran tersebut menggunakan pendekatan tersendiri. Hasil kajian dapat membantu para pengajar BA di UPNM khususnya dan di peringkat universiti amnya untuk saling menyediakan platform bersesuaian dalam pengajaran BA dengan mengambil kira cabaran yang dihadapi pelajar supaya proses pembelajaran dan pengajaran lebih efektif.*

Kata kunci: *Bahasa Arab, Pandemik, Pembelajaran dan Pengajaran dalam Talian, Universiti*

Pendahuluan

Isu pembelajaran dan pengajaran (P&P) bahasa asing khususnya bahasa Arab sentiasa diketengahkan dari masa ke masa selari dengan perubahan corak pendekatan P&P disebabkan tuntutan semasa. Bukan sahaja di luar negara yang menghadapi perubahan dari segi pendekatan pembelajaran secara fizikal kepada pembelajaran berasaskan dalam talian (Maqableh & Alia 2020; Al-Lily et al., 2020), Malaysia turut tidak berkecuali. Sebagai contoh, sejak pandemik COVID-19 yang melanda secara global pada 2019 dan mula menjengah Malaysia pada 2020 sehingga kini, terdapat pelbagai saranan dan pendekatan dilaksanakan bagi menyesuaikan suasana semasa dan pembelajaran dalam kalangan pelajar di Malaysia termasuk pelajar peringkat pengajian tinggi.

Universiti Pertahanan Nasional Malaysia atau UPNM turut melalui fasa peralihan disebabkan berlakunya perubahan pendekatan dalam menyampaikan pengajaran kepada pelajar dengan memanfaatkan teknologi digital atau internet melalui P&P secara dalam talian. Terdapat kursus-kursus yang terlibat dan tidak dapat dilaksanakan secara fizikal antaranya ialah kursus-kursus bahasa asing termasuk kursus Bahasa Arab (sebagai bahasa asing) I dan II. Terdapat pelbagai kursus bahasa asing yang ditawarkan di UPNM. Kursus-kursus bahasa asing

yang ditawarkan di UPNM ialah di bawah kursus teras universiti terdiri daripada 1 jam kredit bagi setiap semester. Lima kursus bahasa asing yang ditawarkan iaitu Arab, Mandarin, Perancis, Rusia dan Sepanyol. Setiap pelajar perlu mengambil satu set bahasa asing daripada lima set tersebut iaitu dua tahap bagi setiap bahasa yang dipilih sebagai contoh sekiranya mengambil Bahasa Arab (I), pelajar perlu lulus kursus tersebut dan menyelesaikan Bahasa Arab (II) pula. Bagi kursus Bahasa Arab, objektif kursus tersebut ialah memperkenalkan kepada pelajar berkenaan bahasa Arab dan menyediakan mereka dengan kemahiran bahasa yang penting untuk membolehkan mereka mendengar, bertutur, membaca dan menulis dengan betul dalam bahasa Arab. Pelajar akan berupaya berkomunikasi berkaitan perbualan harian secara ringkas dan dalam situasi-situasi terpilih. Sementara Bahasa Arab (II) pula ditawarkan kepada pelajar yang lulus Bahasa Arab (I) yang memfokuskan kepada pengetahuan budaya Arab di samping memperkasakan sebutan melalui teks Arab dan juga aktiviti berkaitan. (Buku Panduan Akademik Sarjana Muda Sains Sosial (Bahasa dan Komunikasi Silang Budaya), 2020).

Kursus Bahasa Arab (I) dan Bahasa Arab (II) dilaksanakan secara bersemuka sebelum berlakunya penularan COVID-19 di Malaysia. Namun, rentetan arahan melaksanakan pembelajaran dan pengajaran secara dalam talian daripada pihak UPNM, peralihan pengajaran biasa yang diamalkan secara bersemuka atau fizikal berubah kepada memanfaatkan penggunaan sumber yang dapat digunakan iaitu teknologi dan penggunaan internet. Peralihan amalan pembelajaran dan pengajaran yang sebelum ini dilaksanakan secara fizikal, menjadi cetus kepada para pengajar supaya melihat dan memahami kaedah terbaik dan cabaran yang dihadapi pelajar bagi memastikan pelaksanaan pengajaran pada masa akan datang akan dapat diperbaiki dan ditambahbaik. Justeru, kajian ini dilaksanakan untuk menyelidik penerimaan pelajar terhadap pembelajaran secara dalam talian serta cabaran yang dihadapi pelajar dalam proses pembelajaran tersebut.

Peralihan Bentuk Pengajaran Dan Pembelajaran Secara Bersemuka Kepada Dalam Talian Ketika Pandemik COVID-19

Pandemik COVID-19 telah menjadikan suasana pembelajaran beralih kepada pembelajaran dalam talian. Sehingga kini, terdapat pelbagai kajian berkaitan dilaksanakan. Al-Lily et al., (2020) menggariskan beberapa isu kesediaan pendidikan dalam konteks pandemik COVID-19 antaranya berkenaan kesediaan orang Arab khususnya mendepani penerimaan mereka dalam pendidikan dalam talian atau jarak jauh dan pembelian secara dalam talian memandangkan budaya Arab agak berbeza jika dibandingkan dengan konteks bukan Arab yang mungkin lebih bersedia dari segi digital. Sebagai contoh, pembelajaran di rumah boleh menyebabkan permasalahan seperti tekanan berkaitan pandemik, kebimbangan, kemurungan, keganasan rumah tangga, perceraian dan kehamilan, menghalang pelajar dan guru daripada belajar dan mengajar.

Seterusnya, Al-Lily et al., (2020) melihat aspek nilai budaya Arab yang sangat dekat dari hubungan sosial berkemungkinan membawa kepada penolakan konsep jarak jauh ini. Nilai tersebut dimanifestasikan melalui cara Arab menghargai individu lain antaranya dengan berjabat tangan, mengucup pipi ke pipi, hidung ke hidung dan memegang tangan rakan tanda persahabatan, pelukan sosial, majlis keraian, ziarah kekeluargaan dan aspek lain yang dikaitkan dengan betapa rapatnya sesebuah masyarakat Arab. Semua kebiasaan yang wujud dalam masyarakat sebelum ini telah berjaya hampir dengan mudah mengalahkan budaya Arab semalaman dan hanya dikongsi melalui teknologi.

Sementara itu, Al-Lily et al., (2020) menegaskan bahawa negara yang menggantikan sistem bersemuka dengan pembelajaran jarak jauh melalui dalam talian perlu mengambil kira

beberapa perkara seperti kesediaan dan pelaksanaan menyeluruh secara terpaksa. Kajian Alhawsawi dan Jawhar (2021) menunjukkan bahawa sokongan daripada staf Teknologi Maklumat (IT), ahli teknologi dalam kalangan pendidik mempunyai peranan penting dalam membentuk suasana pembelajaran dalam talian yang sempurna yang mana tenaga pengajar dapat menerima atau berunding dengan mereka berkaitan isu IT. Pada masa yang sama, Hamat dan Mahlan (2020) turut menekankan penyelesaian terbaik dalam situasi pandemik ialah pembelajaran maya yang turut merujuk kepada pembelajaran dalam talian selaras dengan saranan kerajaan Malaysia. Perubahan corak P&P yang diamalkan sebelum ini berubah bertitik tolak kepada kemelut pandemik yang berlaku menjadikan pembelajaran perlu bersifat fleksi, menggunakan teknologi semasa dan mencapai hasil pembelajaran yang ditentukan.

Polisi sesebuah institusi turut memastikan kelancaran proses P&P. Alhawsawi dan Jawhar (2021) mencadangkan bahawa aspek pedagogi sesebuah institusi dapat diubahsuai dan dirunding apabila sesuatu polisi diperkenalkan. Polisi sangat penting dalam mencorak dan membentuk semula jangkaan tenaga pengajar dan praktis mereka apabila beberapa aspek dipenuhi iaitu infrastruktur IT yang baik, sokongan teknologi dan latihan berterusan. Justeru, polisi dan persekitaran menjadi asas kepada perubahan yang ingin dilaksanakan khususnya apabila rundingan berkait dengan kepercayaan dalam pelaksanaan sesuatu pendekatan pedagogi.

Pembelajaran Secara Dalam Talian Ketika Pandemik Covid-19 Dan Kesannya Terhadap Pelbagai Pihak

Proses P&P secara dalam talian telah bermula lebih awal iaitu jika melihat kepada penyelidikan-penyelidikan berkaitan pembelajaran dalam talian, terdapat banyak kajian telah dilaksanakan lebih dari satu dasawarsa. Ini bermakna, pembelajaran dalam talian bukanlah sesuatu yang baharu. Namun, apa yang menarik ialah, pembelajaran yang dilaksanakan dalam talian ketika pandemik COVID-19 dalam konteks Malaysia, bersifat hampir menyeluruh tidak seperti mana kajian-kajian yang ditumpukan sebelum ini hanya menggunakan platform secara dalam talian atau bersifat maya sebagai kaedah tambahan atau sampingan dalam pengajian yang asasnya ialah secara fizikal iaitu sebelum berlakunya penularan COVID-19. Situasi pandemik telah menjadikan teknologi sesuatu yang penting khususnya penggunaan internet menerusi Microsoft Teams, Zoom, Webex dan aplikasi seperti WhatsApp atau Telegram turut digunakan sebagai alternatif kepada proses P&P sebelum ini yang bersifat fizikal.

Terdapat beberapa kesan rentetan pelaksanaan pembelajaran secara dalam talian. Kajian Maqableh dan Alia (2021) menilai kesan peralihan pembelajaran tradisional kepada pembelajaran dalam talian semasa pandemik COVID-19 ke atas pelajar prasiswazah di Universiti Jordan, Jordan dengan menumpukan kepada aspek penilaian pembelajaran dalam talian, kepuasan pelajar dan aspek positif dan negatif menggunakan kaedah pembelajaran tersebut. Kajian tinjauan tersebut mendapati bahawa terdapat permasalahan yang dihadapi pelajar antaranya ialah aspek teknologi, kesihatan mental, pengurusan masa dan menyeimbangkan antara kehidupan harian dan pendidikan, fokus berkurang, capaian internet dan kurang sokongan. Berdasarkan kajian tersebut, lebih satu pertiga daripada responden kajian tidak berpuas hati dengan pengalaman pembelajaran secara dalam talian sekalipun telah melalui tiga semester. Melalui kajian lanjut menggunakan teknik kumpulan fokus, kajian mendapati bahawa pelajar tidak berpuas hati berdasarkan pelbagai faktor seperti gangguan dan fokus berkurangan, isu psikologi dan isu pengurusan. Sekalipun begitu, terdapat aspek positif yang diperoleh melalui pembelajaran dalam talian iaitu pelajar sedar bahawa pembelajaran dalam talian adalah efektif untuk mengurangkan kos dan menjimatkan masa, rasa selamat kerana dapat mengelakkan penularan COVID-19, rasa lebih selesa dan meningkatkan

penglibatan dalam kelas. Sementara aspek negatif merujuk kepada bebanan tugas bertambah berbanding pembelajaran secara tradisional atau bersemuka.

Pandemik COVID-19 ketika ini menjadikan masa yang sukar kepada mereka yang kurang cakna dengan pembelajaran dalam talian berbanding mereka yang berkemampuan untuk menyampaikan pengajaran pada masa-masa krisis seperti penjarakan fizikal. Namun, hubaya-hubaya pembelajaran dalam talian menjadi alternatif kepada pembelajaran konvensional untuk menghadapi implikasi yang teruk untuk sekolah dan persekitaran pembelajaran secara keseluruhan (Jogezai et al., 2021). Penggunaan platform bersesuaian dalam pembelajaran ketika pandemik COVID-19 dapat membantu melancarkan proses P&P. Contohnya, Microsoft Teams menjadi antara satu platform dalam pembelajaran atas talian. Rodriguez-Segura et al. (2020) menjelaskan bahawa ciri-ciri yang terdapat dalam Microsoft Teams itu sendiri memudahkan pengguna atau user friendly selain mewujudkan persekitaran pembelajaran yang memuaskan bagi pelajar dan pensyarah.

Kehadiran pandemik COVID-19 turut memberi kesan positif kepada pelbagai pihak. Aliah Phang (2020) mendapati situasi pandemik ini mengasah kemahiran pelajar universiti supaya lebih bersedia untuk berhadapan dengan alam pekerjaan. Hal ini dilihat pelajar perlu bijak menyusun jadual sendiri dari segi jadual pembelajaran dan juga jadual waktu tugas secara berkumpulan (Hairun Najuwah et.al, 2020). Selain itu, jika merujuk khusus kepada pelajar yang mengambil kursus Bahasa Arab pula, mereka akan lebih kreatif mengakses internet dengan mencari bahan tambahan dalam pembelajaran bahasa supaya dapat maklumat baharu dan memperolehi kefahaman sesuatu topik yang dipelajari (Hairun Najuwah et.al, 2020). Pada masa yang sama, Aliah Phang (2020) turut menekankan kepentingan kesediaan pelajar melalui persediaan awal sebelum sesi pembelajaran bermula dengan mencari bahan bacaan baharu. Situasi ini menjadi sebahagian sisi positif yang perlu diambil kira oleh pelajar.

Peranan Dan Usaha Pelbagai Pihak Dalam Mendepani Pembelajaran Secara Dalam Talian Sebagai Kebiasaan Baharu

Jika menyorot kembali permulaan pandemik di Malaysia, Perdana Menteri Malaysia, Tan Si Muhyiddin Yassin telah mengumumkan perintah kawalan pergerakan (PKP) disebabkan penularan virus COVID-19 di Malaysia di bawah Akta Pencegahan dan Kawalan Penyakit Berjangkit 1988 dan Akta Polis 1967 pada 18 Mac 2020 sehingga 31 Mac 2020 (Utusan Borneo, 2020). Rentetan daripada itu terdapat beberapa fasa PKP seperti 25 Mac 2020 sehingga 14 April 2020 memandangkan terdapat peningkatan kes positif COVID-19 di Malaysia. Sekali lagi pada 10 April 2020 sehingga 28 April 2020, disusuli pengumuman penganjuran seterusnya dari 23 April 2020 sehingga 12 Mei. Sehingga kini PKP masih dilaksanakan namun dalam fasa berbeza iaitu mengikut kawasan terjejas dengan sekatan yang dilaksanakan sama ada PKP atau PKP diperketatkan (PKPD) atau PKP bersyarat (PKPB). (Wilayahku, 2021).

Berdasarkan PKP yang dilaksanakan di Malaysia, lebih daripada 12 bulan pelajar di Malaysia khususnya di UPNM didedahkan dengan pembelajaran secara dalam talian disebabkan kekangan pembukaan kelas secara fizikal untuk mengelakkan penularan COVID-19. Pembelajaran secara dalam talian telah wujud lebih awal lagi, namun pelaksanaan hampir menyeluruh dalam pembelajaran di peringkat UPNM menjadikannya satu senario yang membuka peluang penyelidikan untuk menyelidik penerimaan pelajar terhadap pembelajaran secara dalam talian serta cabaran yang dihadapi pelajar dalam proses pembelajaran tersebut.

Usaha meningkatkan kualiti pembelajaran dalam talian seperti e-pembelajaran umpamanya serta faktor-faktor yang dapat meningkatkan usaha tersebut perlu dilaksanakan memandangkan tanpa usaha sebegini, dikhuatiri tahap pengetahuan pelajar akan berkurang tambahan pula kaedah ini akan terus dilaksanakan disebabkan COVID-19 (Yekefallah, 2021).

Peranan pelajar sangat penting dalam menjayakan proses P&P ketika pandemik ini. Antaranya, (Baber, 2021) menekankan bahawa ciri-ciri seseorang pelajar itu sendiri didapati penting untuk menerima e-pembelajaran semasa situasi pandemik. Mereka perlu bermotivasi untuk mengambil bahagian dan bekerjasama dalam perbincangan.

Penyesuaian pembelajaran ketika era pandemik menjadi kebiasaan baharu yang perlu dititikberatkan. Pembelajaran dalam talian ialah kaedah yang memupuk kemahiran pembelajaran sepanjang hayat memandangkan terdapat pelbagai kemahiran yang perlu digunakan termasuk kemahiran mencari maklumat, bahan yang dipelajari, berdikari, membuat refleksi, perlu bermotivasi dan melaksanakan pentaksiran sendiri (Hamat & Mahlan, 2020).

Isu-Isu Berkaitan Pelaksanaan Pembelajaran Secara Dalam Talian Ketika Pandemik Covid-19 Dan Peranan Pelajar

Terdapat isu-isu yang ditempuhi oleh pelajar dalam mendepani pembelajaran dalam talian sebagai pengamalan baharu. Paling ketara, pengajaran atas talian menggunakan internet sepenuhnya. Hairun Najuwah et.al (2020) menekankan isu utama yang perlu diberi perhatian adalah capaian internet. Faktor perisian terkini turut memainkan peranan penting bagi membantu kelancaran pengajaran dan pembelajaran secara dalam talian. Kajian tersebut mendapati bahawa perisian terkini perlu dimiliki oleh kedua-dua belah pihak pelajar dan tenaga pengajar agar mudah untuk mengakses proses pembelajaran dalam talian. Bayaran tambahan turut dilakukan oleh pelajar sekiranya perlu menaik taraf kelajuan internet. Bagi pelajar yang kurang berkemampuan agak menyukarkan mereka untuk membeli kemudahan akses internet ini. Adnan et.al (2020) turut berpendapat, penggunaan internet menyebabkan pelajar yang kurang berkemampuan terkesan kerana isu kos untuk membeli data internet menjadi faktor utama dan faktor kekangan kewangan.

Terdapat cabaran lain dihadapi pelajar. Sebahagian pelajar memilih untuk pulang ke asrama kerana menghadapi kesukaran capaian internet di kampung halaman (Hairun Najuwah et.al, 2020). Keizinan oleh pihak Kementerian Pengajian Tinggi yang memberi peluang kepada pelajar yang tidak mempunyai akses pulang ke kampus memberikan pelajar kelegaan dan mengurangkan tekanan terhadap masalah capaian internet di kampung halaman. Walaupun beberapa masalah dihadapi pelajar tetapi kesungguhan pelajar untuk mengikuti sesi pembelajaran dalam talian dilihat sangat memberangsangkan.

Faktor suasana pembelajaran juga memberi kesan dalam pengajaran dan pembelajaran dalam talian (Hairun Najuwah et.al, 2020). Sebelum PKP dilaksanakan, proses pembelajaran para pelajar di dalam kampus bersama rakan-rakan dan pembelajaran secara bersemuka dan boleh berinteraksi terus kepada pensyarah. Mohamad Idham (2020) menyatakan sesi pembelajaran tidak boleh ditangguhkan dan perlu diteruskan secara dalam talian supaya pelajar tidak ketinggalan dengan silibus pembelajaran. Namun apabila PKP diumumkan, situasi tersebut memberi kesan kepada suasana pembelajaran daripada belajar bersama kawan kepada belajar secara individu. Selain itu, suasana pembelajaran dirumah tidak begitu kondusif kerana terdapat gangguan rutin sebagai seorang pelajar IPT (Siti Azura et, al. 2021). Suasana pembelajaran di rumah turut menyebabkan pelajar perlu melakukan pelbagai kerja dalam satu masa (Antin et.al, 2018) contohnya pelajar perlu membantu keluarga dan dalam masa yang sama sesi pembelajaran perlu dihadiri. Hal ini menyebabkan pelajar tidak fokus kepada sesi pembelajaran dalam talian.

Berdasarkan perbincangan di atas, terdapat beberapa perkara perlu diambil kira apabila menyelidik berkaitan pembelajaran dalam talian khususnya ketika pandemik ini memandangkan pilihan masih terhad kepada bukan secara fizikal.

Metodologi Kajian

Kajian ini ialah kajian pelbagai kes yang menggunakan kaedah temu bual mendalam separa berstruktur. Temu bual telah dilaksanakan dengan menggunakan platform maya dan direkod, seterusnya audio ditranskripsikan secara verbatim. Hasil kajian ini dianalisis secara tematik berdasarkan data temu bual yang diperolehi. Kajian ini melibatkan pelajar dari pelbagai latar belakang jurusan yang mempelajari bahasa asing (Arab II) sebagai subjek wajib universiti. Para peserta kajian telah selesai mengambil kursus bahasa Arab (I) dan ketika kajian ini dilaksanakan, mereka telah selesai minggu ke-14 kuliah bagi kursus Bahasa Arab (II) semester II sesi pengajian 2020/2021.

Dapatan Kajian

Berdasarkan kajian ini, terdapat dua persoalan kajian sebagaimana berikut dan dikemukakan bersama dapatan kajian dan perbincangan.

Soalan Kajian I. Bagaimanakah penerimaan pelajar terhadap pembelajaran secara dalam talian?

Terdapat pelajar yang pada mulanya teruja untuk mempelajari bahasa Arab selepas memilih bahasa Arab sebagai bahasa asing, namun berasa rugi kerana pembelajaran dilaksanakan secara dalam talian. Pelajar kemudiannya membiasakan diri dengan menggunakan platform Microsoft Teams, bahkan mula membiasakan diri dengan apps yang membantu kepada pembelajaran secara dalam talian. Jika merujuk kepada penerimaan pelajar, mereka mengemukakan beberapa isu iaitu berkenaan penerimaan peralihan bentuk pengajaran dan pembelajaran secara dalam talian disebabkan pandemik COVID-19 dan kesan pembelajaran secara dalam talian terhadap mereka sebagai pelajar.

Bentuk Penerimaan Pelajar Terhadap Peralihan Bentuk Pengajaran dan Pembelajaran Fizikal kepada Pembelajaran dalam Talian

Keseluruhannya pelajar mengakui bahawa mereka menerima perubahan amalan pengajaran dan pembelajaran dan lama kelamaan membantu mereka dalam pembelajaran. Peserta dalam kajian ini mengakui bahawa mereka tidak mempunyai pilihan untuk tidak memilih pembelajaran secara dalam talian. Namun, sekiranya diberi pilihan, mereka lebih selesa mempelajari bahasa Arab secara bersemuka.

Kesan Peralihan Bentuk Pengajaran Dan Pembelajaran Terhadap Pelajar

Pelajar turut mengemukakan kesan peralihan bentuk pengajaran dan pembelajaran terhadap diri mereka.

Terganggu

Ketika semester I, mereka merasakan bahawa proses pembelajaran banyak terganggu disebabkan capaian internet yang tidak memuaskan. Justeru, pelajar merujuk kepada rakaman Microsoft Team yang disediakan oleh tenaga pengajar.

Boleh Diakses Apabila Diperlukan

Sisi positif ialah mereka dapat merujuk rakaman mengikut masa yang mereka perlukan dan inginkan.

Bahan Pembelajaran Lebih Meluas

Pada masa yang sama mereka merasakan bahan pembelajaran ketika pembelajaran dalam talian adalah meluas dan banyak dapat dimanfaatkan.

Kekok

Berbanding secara bersemuka, terdapat pelajar yang berasa kekok untuk berkomunikasi dalam kelas secara dalam talian. P5 antaranya menyebut: "...kekok sebab susah untuk bercakap berbanding bersemuka, kemudian ok, biasakan diri".

Menjimatkan Kos

Menariknya terdapat pelajar berpandangan bahawa pembelajaran secara dalam talian dapat menjimatkan kos penggunaan kertas dan memudahkan pelajar dan pensyarah. Namun, terdapat pula pelajar yang lebih selesa mempelajari sesuatu kursus dengan merujuk kepada bahan bercetak.

Perlu Lebih Berdikari

Pelajar perlu lebih berdikari dalam pembelajaran kerana tugas yang diberikan memerlukan pelajar mencari bahan-bahan secara dalam talian

Soalan Kajian II. Apakah cabaran yang dihadapi pelajar dalam proses pembelajaran tersebut?

Terdapat pelbagai cabaran yang dihadapi oleh pelajar dalam kajian ini sepanjang pembelajaran bahasa Arab sebagai bahasa asing ketika mereka berada di semester I dan II. Cabaran utama ialah capaian internet sama ada ketika berada di rumah atau universiti. Namun, cabaran tersebut telah diatasi dari masa ke masa dengan penyediaan capaian internet oleh pihak universiti atau pelajar sendiri menggunakan data internet percuma atau data yang dibeli. Cabaran yang diperoleh bukan sahaja kerana disebabkan faktor pembelajaran secara dalam talian, malah bertambah sukar apabila kursus yang dipelajari ialah kursus bahasa Arab sebagai bahasa asing.

Berikut ialah isu-isu utama cabaran pelajar sepanjang mempelajari bahasa Arab ketika situasi pandemik COVID-19.

Fasiliti

Selanjutnya kekangan fasiliti yang mana ketiadaan capaian internet, capaian internet tidak baik, terkeluar kelas menyebabkan pada mulanya pelajar memahami kursus yang sedang dipelajari namun, apabila pelajar masuk semula ke kelas setelah mendapat kembali capaian internet, mereka telah ketinggalan. Selain fasiliti capaian internet, cabaran yang turut dihadapi pelajar dalam kajian ini ialah terdapat pelajar yang berasa tidak selesa kerana tiada tempat/ruang khas belajar serta terpaksa bersila ketika pembelajaran dari rumah berbanding jika di universiti (kelas yang selesa).

Capaian internet

Dari segi fasiliti pula pelajar masih menegaskan bahawa tiada capaian internet atau capaian internet tidak baik sebagai antara cabaran utama dalam pembelajaran bahasa Arab ketika pandemik COVID-19. P20 contohnya menyebut: "First sebab kita belajar melalui online, sebab saya tinggal di Sabah, cabaran saya yang pertama sekali adalah dengan internet, dia buat saya susah nak cari maklumat".

Ruang belajar

Selain itu, kekangan dari segi fasiliti ialah apabila tiada tempat atau ruang khas belajar sekiranya belajar dari rumah berbanding di universiti.

Pengurusan masa

Berdasarkan kajian ini juga, pelajar mendapati bahawa pengurusan masa menjadi suatu cabaran kerana terdapat tugas-tugas dengan masa serahan yang perlu diselesaikan sedangkan membaca artikel bahasa Arab mengambil masa.

Kurang pengetahuan dan penggunaan teknologi

Pelajar dalam kajian ini turut merasakan bahawa cabaran yang dialami ialah mereka perlu mempunyai pengetahuan dan penggunaan teknologi. Contohnya, pelajar perlu merujuk YouTube untuk menentukan bahawa tulisan Arab dapat dimasukkan. Tambahan pula, cabaran menyesuaikan situasi menjawab peperiksaan dalam talian termasuk memerlukan pelajar memasukkan tulisan Arab. Selain itu, terdapat pelajar yang menggunakan apps dalam google play samada melalui Android atau iPhone bagi pencarian maklumat baharu.

Di sebalik cabaran yang wujud, peranan pelajar dalam mengatasi cabaran tersebut sangat membantu mereka dalam pembelajaran bahasa Arab.

Memberi tumpuan dengan tidur awal pada waktu malam

Pelajar turut berpandangan bahawa tidur awal pada waktu malam dapat membantu pelajar bersedia awal untuk menyertai sesi pembelajaran. Seterusnya dapat membantu pelajar memberikan tumpuan semasa sesi pembelajaran secara atas talian. Semasa proses pengajaran berlangsung, terdapat pelajar yang cuba untuk hilangkan rasa mengantuk dalam kelas dengan cara, makan atau mengunyah sesuatu.

Elakkan mengganggu rakan dan belajar bersama mereka supaya fokus

Selain itu, terdapat cabaran yang perlu dihadapi oleh pelajar, contohnya dalam kajian ini, pelajar cuba mengelakkan gangguan daripada kawan-kawan agar dapat memberikan tumpuan kepada proses pembelajaran.

Pendekatan-pendekatan lain

Selain pendekatan di atas, peserta kajian turut mencari penyelesaian melalui bantuan rakan, **merujuk nota, mempertingkatkan penulisan melalui tulisan dan percakapan serta cuba membaca penulisan Arab** dengan meluaskan pencarian bahan bacaan, samada dalam Google, kamus atau mencatat perbualan yang sudah dipelajari iaitu al-hiwar untuk dijadikan sebagai rujukan kepada pelajar. Pendekatan seterusnya ialah mencatat perbualan yang sudah dipelajari iaitu al-hiwar untuk dijadikan sebagai rujukan. Mulakan dengan perbualan yang mudah, dengan berkaitan kehidupan. Peserta kajian juga mengakui perlu bijak membahagikan masa.

Sikap positif pelajar untuk menyesuaikan diri

Menariknya, terdapat peserta yang merasakan bahawa tiada cabaran langsung dalam mempelajari bahasa Arab sekalipun ketika suasana pandemik kerana dapat menyesuaikan diri. Selain itu terdapat pelajar dalam kajian ini yang merasakan tiada cabaran yang dihadapi kerana mengakui bahawa setiap persoalan dapat dicari di internet.

Menghafal kosa kata bahasa arab melalui kaedah-kaedah khusus

Pelajar turut berusaha untuk menghafal kosa kata baharu dalam bahasa Arab. Beberapa kaedah yang dipraktikkan oleh pelajar dalam kajian ini antaranya pelajar mencari makna sama ada melalui Google, mencari makna daripada kamus, menggunakan buku mutaradifat dan melalui buku mudadat. Terdapat pelajar yang menggunakan kaedah menulis kosa kata, menghafal kosa kata dan mengulang baca kosa kata sebanyak 10kali sehingga kosa kata BA tersebut mereka hafal.

Atasi masalah capaian internet melalui alternatif

Antara alternatif yang dilaksanakan pelajar bagi mengatasi masalah capaian internet secara langsung, pelajar dalam kajian ini merujuk rakaman, mencari kawasan capaian yang baik, menggunakan data sendiri, menggunakan laptop rakan, atasi dengan pasang wifi jika ada masalah sampai terkeluar talian, minta Bantuan kawan bahagian yang ketinggalan. Manakala, berkaitan masalah capaian internet yang kurang baik, pelajar dalam kajian ini mengambil pendekatan untuk merujuk semula rakaman di Microsoft Teams. Contohnya P19 berkata: "...kalau belajar online Ms Teams lagi baik dari yang lain. Ms teams boleh record time sesi kelas tu. Dia ada features tu. So students boleh tengok balik recording tu...".

Menjawab soalan pensyarah

Selain cabaran, pelajar turut mengemukakan kaedah mereka mengatasi cabaran yang dihadapi tersebut. Sebagai contoh, dalam kajian ini, terdapat pelajar yang mengakui bahawa pelajar yang namanya dipanggil pensyarah untuk menjawab soalan, sebenarnya membantu mempertingkatkan bahasa Arab pelajar walaupun pelajar tersebut tidak mahir. Sebaliknya, panggilan tersebut berkesan untuk mempertingkatkan soft skill pelajar, mempertingkatkan pertuturan bahasa Arab kerana bahasa Arab bukan mudah jika tiada asas yang baik. Selanjutnya pelajar menghubungi pensyarah secara peribadi-Whatsapp untuk bertanya lanjut kepada pensyarah selain merujuk kawan, YouTube, dan nota untuk lebih faham.

Mencari suasana pembelajaran yang lebih selesa

Terdapat pelajar yang mengambil pendekatan keluar dari rumah kerana ingin mengelakkan daripada diganggu adik beradik dan sekiranya ibu memohon bantuan ketika sesi pembelajaran sedang berjalan.

Perbincangan

Berdasarkan dapatan kajian, kesediaan menerima peralihan pembelajaran dari bersemuka kepada dalam talian adalah berasaskan kepada tiada pilihan lain dalam situasi sukar ini. Pelajar ketika semester I kelihatan cuba memahami perubahan yang berlaku dan mula menyesuaikan diri ketika semester II kerana telah melalui situasi yang sama dalam semester sebelumnya. Kesediaan merupakan aspek penting dalam memastikan kejayaan P&P dalam talian secara menyeluruh (Al-Lily et al.,2020) apatah lagi apabila melibatkan pelajar yang tidak cekap menggunakan teknologi maklumat sebelum berlakunya pandemik COVID-19 (Jogezai et al., 2021). Kajian ini menunjukkan para pelajar selesa menggunakan Microsoft Teams sebagai antara platform pembelajaran yang membantu mereka mempelajari bahasa Arab. Rodriguez-Segura et al. (2020) turut menekankan kelebihan ciri-ciri yang terdapat dalam Microsoft Teams itu sendiri kerana memberi suasana P&P yang mudah bagi tenaga pengajar dan pelajar sendiri kerana mudah digunakan. Kesan peralihan bentuk pengajaran dan pembelajaran terhadap pelajar dapat dilihat dalam kajian ini apabila pelajar memperincikan beberapa kesan rentetan pembelajaran secara dalam talian ketika pandemik COVID-19. Pelajar merasa terganggu

disebabkan capaian internet tidak memuaskan ketika semester I namun, di sebalik kekangan tersebut mereka berpeluang melihat sesi kuliah secara berulang kerana adanya rakaman kuliah pensyarah. Mereka memanfaatkan teknologi dengan mencari bahan pembelajaran sebanyak mungkin melalui platform seperti YouTube dan Instagram selain merujuk sama ada kamus secara talian ataupun laman sesawang yang membantu pembelajaran bahasa Arab.

Menariknya terdapat pelajar yang melihat situasi pembelajaran dalam talian memberi kesan positif iaitu menjimatkan kos sementara itu terdapat pelajar yang masih memilih mempelajari bahasa Arab dengan merujuk bahan bercetak kerana lebih selesa. Pelajar menjadi lebih berdikari demi menyiapkan tugas yang diberikan. Sikap berdikari ini memacu kepada pembelajaran secara sendiri yang memanifestasikan pembelajaran sepanjang hayat (Hamat & Mahlan, 2020).

Kajian ini seterusnya memperlihatkan bahawa pelajar mencuba untuk menambahbaik pengetahuan berkaitan teknologi supaya dapat dimanfaatkan dalam pembelajaran bahasa selain itu kualiti data internet turut diambil berat dengan mempersiapkan data yang mencukupi sekiranya mampu sementara bagi yang tidak berkemampuan mereka menggunakan capaian internet yang disediakan oleh pihak universiti, dan ini menjadi kekangan bagi pelajar yang berada di rumah khususnya yang tidak mendapat capaian internet yang sempurna. Aspek ini selaras dengan saranan Yekefallah, (2021) yang melihat bahawa pelajar mempunyai peranan yang penting dalam menjayakan sesi P&P termasuk memastikan kualiti pembelajaran. Walau bagaimanapun, sekiranya mereka tidak mampu berbuat demikian, alternatif lain perlu diambil. Contohnya, menggunakan Whatsapp atau Telegram untuk mendapatkan maklumat daripada tenaga pengajar dan rakan-rakan kerana data internet yang diperlukan adalah lebih kecil.

Dapatan kajian ini turut menunjukkan bahawa pelajar mengambil banyak inisiatif bagi menjayakan proses P&P Bahasa Arab dan antara faktor yang menonjol ialah ciri-ciri individu pelajar yang mempengaruhi tingkah laku, sebagaimana yang turut ditonjolkan dalam kajian Baber (2021). Di sebalik kepelbagaian latar belakang pelajar, dari jurusan yang berbeza dan tempoh pengalaman pembelajaran yang berbeza, pandangan mereka hampir sama dari konteks tujuan pembelajaran bahasa Arab sebagai bahasa asing sama ada untuk tujuan agama, ibadah, minat mahupun faktor persekitaran dan sendiri. Usaha yang ditonjolkan pelajar sama ada mempunyai asas sejak sekolah rendah atau sekolah rendah sahaja tetap dibanggakan kerana memberi komitmen yang sama seperti pelajar yang mempunyai asas yang lebih iaitu mereka yang mempelajari peringkat sekolah menengah.

Hasilan kajian ini mendapati bahawa terdapat pelbagai perincian di sebalik aspek penerimaan, kesan dan cabaran yang dilalui pelajar yang mempelajari bahasa Arab sebagai bahasa asing peringkat universiti. Kajian ini mempunyai limitasi kerana peserta kajian khusus kepada pelajar UPNM. Walaupun begitu, kajian ini melihat bahawa temu bual yang dilaksanakan membongkar perincian yang lebih spesifik dan mendalam berhubung isu yang dikaji kerana para penyelidik berpeluang menggunakan kaedah *probe* dan *prompt* yang biasa digunakan dalam kaedah temu bual mendalam separa berstruktur berbanding menggunakan kaedah tinjauan. Sedikit sebanyak, sekalipun tidak dapat digeneralisasikan, gambaran yang diperoleh berkenaan isu-isu yang dibangkitkan pelajar dalam era pembelajaran bahasa Arab secara dalam talian dapat dimanfaatkan oleh tenaga pengajar dan pelajar dari konteks isu-isu sama yang mungkin dihadapi oleh institusi lain. Kajian selanjutnya perlu dilaksanakan dengan melihat kepada pendekatan lebih terperinci yang dilaksanakan oleh institusi dari masa ke masa untuk memastikan proses P&P berjalan dengan efektif dan membina motivasi kesemua pihak bagi menjayakan proses tersebut.

Kesimpulan

Melalui kajian ini terdapat pelbagai aspek yang perlu dilihat kembali oleh pelajar. Situasi pandemik COVID-19 masih tidak menampakkan akan terus hilang segera dan bagi Malaysia kita telah berada di fasa endemik. Namun, di sebalik krisis yang berlaku sebenarnya memberi peralihan baharu kepada semua pihak untuk menyesuaikan diri di samping meneroka dengan lebih banyak berkenaan teknologi supaya tidak ketinggalan. Kebiasaan ini dapat membantu membentuk proses P&P secara hibrid pada masa terdekat sekiranya dengan menggunakan kedua-dua kaedah fizikal dan dalam talian kerana kedua-dua kaedah ini mempunyai kelebihan yang tersendiri di sebalik kekurangan yang turut ada.

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