

I-CReST 2020

International Conference
on Research and Practices
in Science, Technology
and Social Sciences

PROCEEDING BOOK

4 JULY 2020

UNIVERSITI TEKNOLOGI MARA
CAWANGAN SELANGOR, KAMPUS DENGKIL
MALAYSIA

eISBN 978-967-17072-4-1

ORGANISED BY:



UNIVERSITI
TEKNOLOGI
MARA

Pusat
Asasi

GOLD



SPONSORED BY:

GOLD



SILVER



Editor-in-Chief

Dr. Nur Izzatie Hannah Razman

Editors

Dr. Salizatul Ilyana Ibrahim
Dr. Nurul Filzah Ghazali
Dr. Nurul Raihan Mohd Suib
Dr. Mazhani Muhammad
Dr. Norzilah Musa
Dr. Farhah Abdullah
Dr. Azhar Abdul Aziz
Dr. Marziah Mokhtar
Nor Hashima Mohd Sukor

Associate Editors

Ainul Hafiza Abdul Hair
G. Nagamany Govindan
Sathiyaperba Subramaniam

Copy Editors

Dr. Megat Mohd Izhar Sapeli
Fatma Nadiah Abd Hamid
Jebakumari Selvarani Ebenezer
Sharifah Norasikin Syed Hod
Mohd Norazri Mohamad Zaini

Editorial (Advisory) Board

Professor Dr. Saifollah Abdullah
Dr. Ikhwan Naim Md Nawi
Associate Professor Dr. Aidah
Jumahat
Associate Professor Dr. Ir. Ts.
Mohamad Hafiz Mamat
Associate Professor Dr. Mohd
Azam Abdul Rahman

I-CReST 2020

International Conference on Research and Practices
in Science, Technology and Social Sciences
held on 4 July 2020

PROCEEDING BOOK

Published by:
Centre of Foundation Studies, Universiti Teknologi MARA
Cawangan Selangor, Kampus Dengkil
2021

Publisher@ Pusat Asasi, UiTM Cawangan Dengkil, 2021

UITM CAWANGAN DENGKIL

I-CReST 2020 International Conference on Research and Practices in Science, Technology and Social Sciences: PROCEEDING BOOK/

Editor Nur Izzatie Hannah Razman / Salizatul Ilyana Ibrahim/ Nurul Filzah Ghazali/ Nurul Raihan Mohd Suib/ Mazhani Muhammad/ Norzilah Musa/ Farhah Abdullah/ Azhar Abdul Aziz/ Marziah Mokhtar/ Hashima Mohd Sukor/ Ainul Hafiza Abdul Hair/ G. Nagamany Govindan/ Sathiyaperba Subramaniam/ Megat Mohd Izhar Sapeli/ Fatma Nadiah Abd Hamid/ Jebakumari Selvarani Ebenezer/ Sharifah Norasikin Syed Hod/ Mohd Norazri Mohamad Zaini

eISBN 978-967-17072-4-1

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law.

Preface

University Technology MARA (UiTM) being a premier university of academic excellence has always thrived to be excellent as a management centre for world-class research, development, and consultancy and research publication. Thus, it has encouraged its academicians to be self-motivated and acclimatise to numerous deviations. Henceforth this virtual International Conference on Research and Practices in Science, Technology and Social Sciences 2020 (I-CReST 2020) provides a common avenue for connecting researchers and scholars across the world who look forward to presenting their research works and findings with shared enthusiasts and as an online event it will offer an impactful academic sharing and networking opportunities.

I-CReST 2020 managed to attract an overall total of 107 numbers of abstracts submitted. A total of 81 abstracts were approved for oral presentation; a yield of 76%. The abstracts were grouped under 4 tracks: - Physical Sciences (15 presenters or 19%), PS; Biological Sciences, BS (10 presenters or 12%); Information Technology, Engineering & Mathematics, IEM (10 presenters or 12%); and Social Sciences & Humanities, SSH (46 presenters or 57%). Participants are mainly from University Technology MARA (57 presenters or 70%) and the rest are from other universities/ institutions (24 presenters or 30%).

The main organiser, Centre of Foundation Studies, Universiti Teknologi MARA Cawangan Selangor, Kampus Dengkil, would like to congratulate all contributors in making the conference a tremendous success! Hopefully this conference will inspire and encourage more researchers to participate in our forthcoming serial conferences.

Thanks again for your continuous support as always, and hope for a fruitful conference!

Dr. Salizatul Ilyana Ibrahim

Chairperson

I-CReST 2020

saliza2910@uitm.edu.my

4 July 2020



Foreword

Assalamualaikum w.b.t.

Dear Authors, esteemed Readers,

I take pride in welcoming all the attendees to our very first Virtual International Conference I-CReST 2020 hosted by Centre of Foundation Studies UiTM, Dengkil and it is the first of its kind, and I am honoured to be part of it. The conference themed Harnessing Potential and Leading Transformational Change Research is a proof of the Centre's commitment to strive for academic dynamism and to deliver a platform for academicians and professionals to share their research findings and achievements to sanction for ideas to be explored and experience as well as expertise to be commissioned into. This is in line with UiTM's mission to place the university on the global map.

This conference shares an insight into the recent research and cutting edge technologies, which gains immense interest with the colossal and exuberant presence of adepts, young and brilliant researchers, and talented student communities presenting their research works and findings with common enthusiasts. This online event will offer the same impactful academic sharing and networking opportunities although it is done online.

I am particularly happy to be present in this unique event today and to exchange views and share experiences with other high-level professors, colleagues and friends, representing many well-known Universities and Research Institutes together with members of relevant international organizations.

I congratulate you for your commitment and active participation and wish you all the success and also would like to take this opportunity to congratulate the organising committee of the Center of Foundation Dengkil Campus whose commitment and tireless efforts have made I-CREST 2020 happen.

I sincerely hope that this conference will discuss all the different facets of this exciting topic and come up with recommendations that will lead to a better, healthier, merrier world. I wish the conference great success.

Thank you.

Professor Dr. Saifollah Abdullah

Director

Centre of Foundation Studies

University Teknologi MARA (UiTM)

Cawangan Selangor, Kampus Dengkil

About the Conference

Centre of Foundation Studies is pleased to announce its International Conference (I-CReST 2020) that will be held on 4th July 2020. With the theme, “Harnessing Potential and Leading Transformational Change”, the conference will provide a platform for undergraduates and postgraduate students, academics, researchers, professionals and industrial practitioners from various backgrounds to share ideas and research findings in their respective fields.

In the past, a few colloquiums series and national level conference; ASiD Conference (ASiDCON2018) have been conducted since the Centre of Foundation Studies started to operate at Dengkil Campus in 2016. This year, we are transforming the event to an international conference with an aspiration to provide a common avenue for connecting researchers and scholars across the globe.

Due to the recent development relating to Covid 19 and in compliance with the country’s regulation on no mass gathering and implementation of movement control order (MCO), I-CReST 2020 is now made available to you online. This online event will offer you the same impactful academic sharing and networking opportunities.

The conference provides opportunities for publication in proceedings with e-ISBN. Selected papers, after a peer-reviewed process will be considered for publication in WOS/Scopus/MyCite indexed journals.

Theme Synopsis

I-CReST 2020's main theme addresses four tracks to encourage scientific writing/ publication across multidisciplinary research in the broad fields of:-

Physical Sciences:

Medical Physics; Nuclear Physics; Photonics; Optics; Spectroscopy; Device Physics; Material Science; Polymers; Nanotechnology; Solid State Ionics; Inorganic and Organic Chemistry; Natural Products Chemistry; Catalysis; Renewable and Sustainable Energy

Biological Sciences:

Forestry; Ecology; Entomology; Microbiology; Biotechnology; Genetics; Bioinformatics; Botany; Nutraceutical; Cosmeceutical; Pharmaceutical; Zoology; Pharmacology

Information Technology, Engineering and Mathematics:

Captology; Information Virtualization; Modelling and Simulation; Computer Security; Mobile Communication; Software Engineering; Internet of Things; Cloud Computing; Data Analytics; Image Processing; Pure and Applied Mathematics; Mathematics Education; Mathematical Modelling; Mathematical Statistics; Fuzzy Mathematics and Applications; Operations Research

Social Sciences & Humanities:

Education/Pedagogy; Communication Arts; Information Communication; Literature and Poetry; Civil Law; Economics and Financial Law; Human Right Law; Public Law; Islamic Law; Comparative Law; Constitutional Law; Medical Law; Public Law; Private Law; Social Policy and Social Legislation; Criminology; Linguistics/Neurolinguistics/ Sociolinguistics; Al-Quran and Hadith; Aqidah and Islamic Thoughts; Muamalat; Halal Management; Education and Shariah; Astrofiqh and Cosmofiqh

Table of Contents

Preface	iii
Foreword	iv
About the Conference	v
Theme Synopsis	vi

Physical Sciences

The Scattered-Radiation Doses at Different Positions and Eye Levels in the Interventional Angiography Room	2
Halimatussa'diah Ahmad Radzi, Norhanna Sohaimi, Ahmad Razali Md Ralib	
<i>I-CReST 2020: 089-084</i>	

Information Technology, Engineering and Mathematics

The Selection of Low Cost Airline Using Fuzzy TOPSIS Method	11
Ainaa Syahirah Bahadun, Fatin Adilah Johari, Nur Aziean Mohd Idris	
<i>I-CReST 2020: 036-023</i>	

Social Sciences & Humanities

Consumer Contracts: Revisiting the Malaysian Legislative Control and Judicial Intervention of Exclusion Clause	21
Farhah Abdullah, Ong Tze Chin, Norhoneydayatie Abdul Manap, Mun Geet Ow Yong	
<i>I-CReST 2020: 062-052</i>	
Hisbah Institution and Its Role in Environmental Conservation: Reviewed from Islamic Civilization Perspective	32
Ahmad Jamil Jaafar, Mohd Takiyuddin Ibrahim, Huzaimah Ismail	
<i>I-CReST 2020: 039-026</i>	
A Study on the Effectiveness of Malaysian Legal Framework on Sexual Offences against Children to Curb the Paedophilia Activities in Malaysia	39
Hariati Ibrahim @ Musa, Aliff Rahimi Abd Rahim, Mohd Luqman Hakim Azlan, Muhammad Hadif Mohd Hamdan, Muhammad Zaki Mohd Zahid	
<i>I-CReST 2020: 035-022</i>	
The General Performance of Children with Autism Spectrum Disorder while Working with Horses in Unmounted Activities	48
Fatin Aqilanajwa Adenan, Nur Fadilah Darmansah, Kamaruzaman Soeed	
<i>I-CReST 2020: 105-105</i>	
Child Sexual Abuse; A Skeleton in the Closet?	56
Atifah Othman	
<i>I-CReST 2020: 059-047</i>	
The Child Bride; To be or Not to be	65
Nicholas Anak Unang, Nur Dini Asrin, Awang Mohamed Najmi Asri, Nurin Amani Suhaimi, Nur Asma Awatif Azizuddin, Muhammad Aiman Firdaus Azman, Atifah Othman	
<i>I-CReST 2020: 037-024</i>	

It's A Sign! Rethinking the User Experience Design Behind the "Golden Triangle" of Kuala Lumpur	72
Heng Mun Yeow, Pouline Chai Lin Koh, Sook Khuan Wong <i>I-CReST 2020: 020-009</i>	
Cinemagraph Technique as New Media in Public Service Announcement (PSA) on Health Campaign; a Conceptual Paper	92
Fahmi Samsudin, Rosita Mohd Tajuddin <i>I-CReST 2020: 093-095</i>	
Ending Racial Tension by Eliminating the Shadow of Discrimination in the Minds of Malaysians	98
Iman Mi'shyra Mohsin, Nisa Qistina Badrul Hisham, Najwa Azizun <i>I-CReST 2020: 010-019</i>	
Urban Sprawl in Malaysia: A Review of Controlling Methods and Policies	106
Namirah Mohd Akahsah, Raihaana Azmi, Nur Shazleen Natasha Abdul Mu'izz, Nur Aisyah Izzati Zulkupli, Shaun Saega Agas, Wildan Firdaus <i>I-CReST 2020: 038-025</i>	
Female Empowerment: Managing Roles and Challenges as 'Edu-Mums'	114
Josephine Anak Freni Affrin, Krishnaveni K. Subramaniam, Angeline Wong Wei Wei <i>I-CReST 2020: 041-027</i>	
Case Review of Bin Abdullah – Impacts and Development in Malaysian Law	126
Ainul Mardhiyyah Tajudin, Zubli Quzairyl Zubli, Imran Alli Razz Rozzfaisal, Nur Dalili Fahimah Nuradli Ridzwan Shah, Nurul Hasifah Azahar, Abu Zaid Omar <i>I-CReST 2020: 045-030</i>	
Depression Among University Students During COVID-19 Attacks	133
Normala Ismail, Mohamad Kamil Ariff Khalid <i>I-CReST 2020: 061-049</i>	
Entrepreneurial Intention: An Empirical Study among Students Taking Entrepreneurship Course	144
Mohamad Kamil Ariff, Normala Ismail <i>I-CReST 2020: 061-050</i>	
Availability of Online Literature on Politics-Administration Dichotomy in Malaysian Context	154
Azwan Ahzran Perma <i>I-CReST 2020: 064-058</i>	
Freedom of Movement in Malaysia: The Development of the Underrated Rights	161
Nur Hafidah Abd Kadir, Umar Mahfuz Sulaiman, Muhammad Haziq Mansor, Aireena Dini Izzaty Samsul Anuar, Nur Akrimi Mathwa Ahmad Zamri, Muhammad Al-Fateh Azmi <i>I-CReST 2020: 067-059</i>	
Impact of Covid-19 Outbreak on Small and Medium Enterprises (SMEs) Cash Flow	169
Ahmad Rafli Che Omar, Azhar Ahmad, Suraiya Ishak <i>I-CReST 2020: 077-067</i>	

Physical Sciences



The Scattered-Radiation Doses at Different Positions and Eye Levels in the Interventional Angiography Room

***¹Halimatussa'diah Ahmad Radzi, ¹Norhanna Sohaimi, ²Ahmad Razali Md Ralib**

¹Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan
Campus, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

²Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan Campus, Bandar
Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

*E-mail: halimah@iium.edu.my

ABSTRACT

It is important to know the distribution of harmful scattered-radiation doses that reach the eyes of interventional angiography staff. This is because those radiations are capable of causing radiation-induced cataract. Thus, a preliminary study was conducted to compare the scattered-doses in the angiography room at different positions and eye levels. An upper body phantom (Kyoto Kagaku PBU-31) that simulates a patient was exposed to radiation exposures from an angiographic system (Artis Q; Siemens Medical Solutions Inc., Erlangen, Germany). The technical factors for percutaneous transhepatic biliary drainage procedure in a posteroanterior (PA) projection were used for the exposure. Four durations of Digital Subtraction Angiography (DSA) acquisition were studied; 4s, 8s, 10s and 16s. The scattered doses at different positions and eye levels were measured using the nanodot optically stimulated luminescence (OSL) dosimeters (Landauer, Inc., Glenwood, USA). For each duration, a total of 27 nanodots were placed on nine paper tubes to simulate nine different positions of staff in the angiography room. On each paper tube, three nanodots were used to study the scattered doses at the eye levels of 135cm, 150cm and 165cm. The preliminary findings are similar for all four acquisition durations. Positions which are nearer to the phantom received higher dose except for the 165cm eye level. At this level, the flat panel detector acts as scattered-radiation absorber. Meanwhile, comparing the doses at different eye levels, 135cm eye level received higher dose as compared to others especially when nearer to the phantom. However, at farther positions, doses of three eye levels are quite similar. In conclusion, there is a pattern of increase or decrease in scattered-radiation doses with different positions and eye levels. The findings are useful for the angiography staff of different eye levels to know which position is safer for them during the procedure.

Keywords: Scattered-radiation; eye level dose; interventional angiography

1. INTRODUCTION

The medical staffs in interventional angiography room are exposed to scattered-radiation during the procedure. Interventional angiography procedures are minimally invasive procedures that are performed using angiographic equipment to visualise, diagnose and treat diseases [1]. C-arm in either a single-plane or biplane fluoroscopic system is a commonly used angiographic equipment. Radiologist, radiographers and nurses are the examples of interventional angiography staffs that commonly work in the angiographic room [1,2].

The angiography staffs are exposed to the scattered-radiation as they are together with the patient in the angiography room during an interventional procedure. Scattered-radiation is the

reflected radiation from the patient's body after the primary radiation from the x-ray source entered the patient [3]. These radiations can reach the eyes of the staffs. The higher radiation exposure to patient will increase the amount of scattered-radiation doses to the staff's eyes [4]. It can reach the radiosensitive part of the eyes which is the lens.

Studies have shown that lenses of staffs who are exposed to these radiation doses have the risk of developing radiation-induced cataract [5]. Due to that, the International Commission on Radiological Protection (ICRP) has revised and reduced the dose limit to the eyes of the staffs to a much lower dose limit which was from 150mSv per year to 20mSv per year which is an average of 5 years doses [6]. Staffs could exceed the dose limit to their eyes especially if they do not use any radiation protection devices [4]. Scattered-radiation dose measurement to the eyes of staffs are therefore important.

It is important to study the scattered-radiation doses at different positions and eye levels. Different in positions means that the distance of staffs to the x-ray tube and the patient are variable. Studies suggested that a primary staff who performed the intervention (e.g.: radiologist) received higher eye lens radiation dose as compared to other staffs [7,8]. The primary staff normally stand next to the patient and x-ray tube [7,8]. However, this statement might not be applicable to all eye level of staff. A preliminary study on different eye level suggested that the staff that is farther away from the patient received higher dose than the primary staff [9]. This might be due to radiation was absorbed by the image detector when the primary staff is near the patient. It was also found that lower eye levels are exposed to higher scattered-radiation dose [9].

Measurement of scattered-radiation doses which are lower in energy than the primary radiation can be performed with the use of optically stimulated luminescence dosimeter (OSLD) [10]. OSLD has been used to study the scattered-radiation doses for other radiological examination such as digital breast tomosynthesis [11,12]. It was also possible to use OSLD to study scattered-radiation in a fluoroscopic room [13]. In this study, the same system is used to measure the scattered-radiation doses. This preliminary study was conducted to compare the scattered-doses at different positions and eye levels in the angiography room.

2. MATERIALS & METHODS

Materials

The radiation exposures were done by using an angiographic equipment (Artis Q by Siemens Medical Solutions Inc., Erlangen, Germany). The accuracy of the x-ray tube voltage (kV) is $\pm 5\%$. Meanwhile, the accuracy of the x-ray tube current (mA) and pulse time (ms) are the same which is $\pm 10\%$. The minimum quality equivalent filtration is 2.5mm Al at 75kV/HVL 2.7mm Al. The system is making use of flat panel detector (FD) to indirectly convert the x-ray radiation to electrical signal. X-ray exposure was done on an upper male body phantom (Kyoto Kagaku PBU-31) which simulates a patient. The phantom was made of epoxy resin and polyurethane to mimic the x-ray attenuation properties of a human body.

Measurement of scattered-radiation were done using the nanoDotTM optically stimulated luminescence dosimeters (OSLD) by Landauer, Inc., Glenwood, IL, USA. The dosimeters were able to store information using aluminium oxide detectors ($\text{Al}_2\text{O}_3:\text{C}$). Screened nanoDotTM were used in this study with the accuracy in readings of $\pm 5\%$. The nanoDots were sufficiently bleached before each use.

InLight microStar reader was used to measure the dose received by the dosimeters. It was able to measure the light intensity which was emitted by the aluminium oxide detector. The light intensity is directly proportional to the intensity of the received radiation dose [14]. Before each daily usage, the standard performance measurements of the reader were taken. This is to ensure that the reader performance is within the specified limit as stated in the manual [14]. Low dose calibration was used since the measurement of the scattered-radiation in this study was small which was less than 0.3 mGy.

During the angiographic exposures, nine radiolucent paper tubes with the height of 180cm were used to hold the nanoDotTM dosimeters at different positions and eye levels. The paper tubes were joined together using plastic joints and were supported with additional shorter paper tubes. The inner diameter of the paper tubes was $13\text{mm} \pm 0.3\text{mm}$ and the thickness was $3\text{mm} \pm 0.3\text{mm}$.

Methods

Prior to the preliminary study, a background radiation measurement in the angiographic procedure room was done. It was observed that the dosimeters which were exposed to the background radiation in the angiographic room were receiving similar background radiation measurements as the control dosimeters which were stored in a lead container. Thus, the average readings of twelve control dosimeters were used for the real scattered-dose measurement calculation.

Two sessions of exposures were conducted in early February 2020 at International Islamic University Malaysia (IIUM) Medical Centre. The first session was to study the 4s and 8s exposure durations while the second session was to study the 10s and 16s durations. However, the pre-exposure readings of dosimeters were performed a day prior to the exposure for the first session while both pre-and-post exposure readings were performed in the same day for the second session. The readings of dosimeters were done at the Kulliyyah of Allied Health Sciences, IIUM Kuantan Campus. The reading process were done one-to-two hours after the exposure due to the different venues for exposing and reading the dosimeters.

During exposures, the phantom was exposed with the technical factors for percutaneous transhepatic biliary drainage (PTBD) procedure in a posteroanterior (PA) projection. Digital Subtraction Angiography (DSA) acquisition mode was used and the automatic exposure control was selected. The kilovoltage (kV) value was 67.4kV for all exposures and the mA exposure range from 400.9mA to 412.5mA. 32 cm flat panel detector (FD) input field was chosen. The frame rate per second was 4 f/s. In addition, 0.2mm Cu filter was added. Fine focus was maintained throughout the exposures. A total of 4 exposure durations were studied; 4s, 8s, 10s and 16s. The measurements of dose area product obtained from the angiographic system after each exposure were recorded. The height of examination table height was 102cm from the floor. The source-to-FD distance was 97cm. There was 2cm distance between the upper surface of the phantom with the FD. The distance between the centre of the region-of-interest with the adjacent paper tube was 40cm.

For each exposure duration, there was a total of 9 paper tubes that are used except for the 4s duration which has missing values for the ninth location. Each paper tube held 3 dosimeters at 3 different eye levels of 135cm, 150cm and 165cm. Eight of the paper tubes were placed at the side of the examination table to measure scattered-radiation at the area which the radiologists and nurses normally stand. The ninth paper tube is placed at the right end of the

examination table of which a radiographer normally stands. For those 8 paper tubes, the distance between each paper tube was 0.5m along the examination table and 0.6096 behind the table. Figure 1 illustrate the positions of paper tubes from table and phantom.

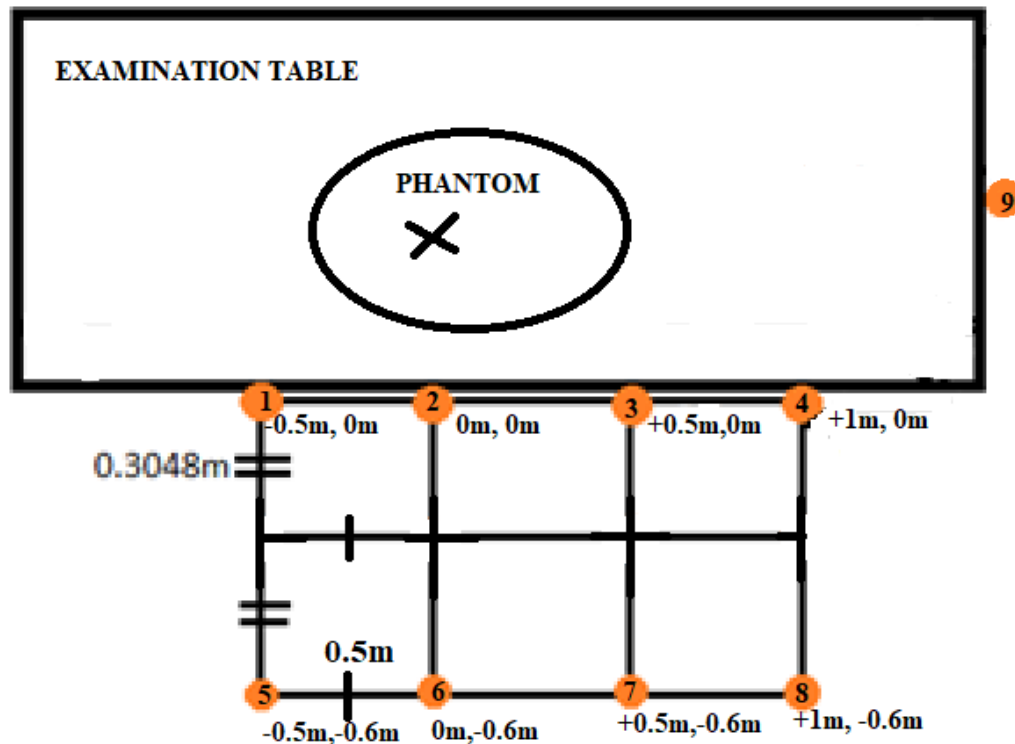


Figure 1: The positions of paper tubes from phantom and examination table

Data Analysis

To increase the accuracy of the measurement, each pre and post-exposure measurement is the average of three repeated readings of the dosimeters [15]. The real scattered-radiation dose measurement is the calculated dose after deducting a post-exposure measurement with a pre-exposure measurement and the average readings of control dosimeters. The real scattered was descriptively analysed and tabulated.

Normalised scattered-radiation dose was obtained by dividing each real scattered-radiation dose with the respective dose-area-product of an exposure duration. Normality test was conducted on the normalised data set. A non-parametric test was used as the data was skewed to the right. Kruskal-Wallis test was used to compare the unrelated normalised scattered-radiation doses at different positions and eye levels. Post-hoc pairwise comparisons with Bonferroni correction were obtained following a significant result of Kruskal-Wallis test. This is to determine which positions or eye levels that were significantly difference with one another. Note that missing values were excluded from the descriptive and statistical analysis.

3. RESULTS AND DISCUSSIONS

Radiation Doses at Different Positions

The preliminary findings are similar for all four acquisition durations. The positions which were nearer to the phantom received higher dose and the findings were similar to other studies [7,8].

The results in Table 1 showed that positions of -0.5m to +0.5m along the x-ray tube received higher scattered-radiation dose. The highest dose was at the position next to the phantom (0m,0m). This is because the source of scattered-radiation is the phantom or in the clinical setting is the patient [3,16]. The position which received the least dose was the most distant position from the phantom which is the right end of the examination table.

The overall normalised scattered-radiation doses as shown in Table 1 also had a similar pattern in increased and decreased doses. There was a significant different in normalised scattered-radiation doses between all nine different positions ($H(8)=63.233, p = <0.001$). Post-hoc results showed that the positions which were farther away from the phantom ([+ 1m, 0m], [+1m, -0.6m], End of table) received significantly lower scattered-radiation doses as compared to those near the phantom ([-0.5m, 0m], [0m,0m], [+0.5m,0m],[0m,-0.6m]. The right end of the examination also received significantly lower dose than two additional positions ([-0.5m, -0.6m], [+0.5m, -0.6m]). Thus, concerning the scattered-radiation to the eyes, it is better to stand +1m away than to stand within 0.5m beside the main operator (e.g.: radiologist) during the exposure. Even, the positions of 0.609m or 2 feet behind the table also received higher dose than the +1m and end of table position. This is similar to a study that suggested that moving one foot behind the examination table may not provide additional radiation protection [16].

Table 1: Median and IQR of scattered-radiation doses at different positions

Positions	Scattered-dose, mGy Median (IQR)					Overall Normalised dose, mGy/mGym ² Median (IQR)
	4s	8s	10s	16s	Overall	
-0.5m, 0m	0.0211 (0.0211)	0.0380 (0.0379)	0.0383 (0.0489)	0.0660 (0.0824)	0.0352 (0.0428)	0.0567 (0.0614)
0m,0m	0.0119 (0.0536)	0.0214 (0.1088)	0.0620 (0.1108)	0.1046 (0.1762)	0.0526 (0.0974)	0.0640 (0.1384)
+0.5m, 0m	0.0164 (0.0302)	0.0335 (0.0465)	0.0381 (0.0355)	0.0539 (0.0542)	0.0334 (0.0368)	0.0496 (0.0478)
+ 1m, 0m	0.0075 (0.0031)	0.0135 (0.0033)	0.0119 (0.0053)	0.0199 (0.0100)	0.0127 (0.0076)	0.0191 (0.0064)
-0.5m, - 0.6m	0.0118 (0.0077)	0.0266 (0.0119)	0.0282 (0.0101)	0.0480 (0.0081)	0.0274 (0.0202)	0.0400 (0.0115)
0m, -0.6m	0.0136 (0.0047)	0.0347 (0.0133)	0.0303 (0.0067)	0.0484 (0.0086)	0.0325 (0.0245)	0.0422 (0.0088)
+0.5m, - 0.6m	0.0121 (0.0050)	0.0244 (0.0084)	0.0234 (0.0060)	0.0387 (0.0062)	0.0239 (0.0157)	0.0344 (0.0072)
+1m, - 0.6m	0.0067 (0.0020)	0.0137 (0.0089)	0.0129 (0.0016)	0.0198 (0.0055)	0.0133 (0.0110)	0.0177 (0.0038)
End of table	Missing value	0.0000 (0.0020)	0.0010 (0.0016)	0.0029 (0.0039)	0.0010 (0.0023)	0.0012 (0.0024)

However, it is important to highlight that not all primary staff who stand next to the patient will receive the highest dose. The findings from this study suggested that those with the eye levels of 165cm would receive lower dose if positioned next to patient (0m,0m) as shown in Table 2. The 165cm eye level received lower eye radiation dose at 0m, 0m as compared to another four positions ([-0.5m, 0m], [-0.5m, -0.6m], [0m, -0.6m], [+0.5m, -0.6m]). This is

similar to another preliminary study that studied the eye level of 157.5cm and 177.8cm. The radiation doses to the eyes were lower since the image detector acts as a scattered-radiation absorber [9]. The results in this current study demonstrated that the above result is only applicable for people with higher eye levels. At the eye level of 150cm and below, the scattered-radiation dose was still the highest when positioned next to the phantom.

Table 2: Median and IQR of scattered-radiation doses at different positions and eye levels

Positions	Scattered-dose, mGy Median (IQR)		
	135cm	150cm	165cm
-0.5m, 0m	0.0661 (0.0451)	0.0382 (0.0226)	0.0227 (0.0111)
0m, 0m	0.1284 (0.0982)	0.0417 (0.0667)	0.0186 (0.0359)
+0.5m, 0m	0.0589 (0.0284)	0.0358 (0.0211)	0.0179 (0.0127)
+ 1m, 0m	0.0151 (0.0093)	0.0119 (0.0062)	0.0116 (0.0076)
-0.5m, -0.6m	0.0352 (0.0189)	0.0274 (0.0158)	0.0242 (0.0164)
0m, -0.6m	0.0348 (0.0219)	0.0352 (0.0189)	0.0275 (0.0179)
+0.5m, -0.6m	0.0272 (0.0125)	0.0256 (0.0156)	0.0217 (0.0142)
+1m, -0.6m	0.0116 (0.0079)	0.0141 (0.0063)	0.0160 (0.0127)
End of table	0.0017 (0.0063)	0.0008 (0.0011)	0.0010 (0.0029)

Radiation Doses at Different Eye Levels

Higher scattered-radiation doses were measured at lower eye levels for all four exposure durations as shown in Table 3. The 135cm eye level received the highest dose while the 165cm received the lowest doses. Eye level of 135cm received more scattered-radiation since the distance with phantom is shorter than the other eye levels [16]. These observations were more evident when the positions of those eye levels were nearer to the phantom as shown in Table 2 above. However, the scattered-radiation doses of three eye levels are similarly low at farther positions ([+ 1m, 0m], [+1m, -0.6m], End of table).

Table 3: Median and IQR of scattered-radiation doses at different eye levels

Eye Levels, cm	Scattered-dose, mGy Median (IQR)					Overall Normalised dose, mGy/mGym ² Median(IQR)
	4s	8s	10s	16s	Overall	
135	0.0152 (0.0223)	0.0349 (0.0465)	0.0303 (0.0394)	0.0484 (0.0532)	0.0324 (0.0433)	0.0430 (0.0640)
150	0.0142 (0.0079)	0.0244 (0.0198)	0.0282 (0.0236)	0.0480 (0.0343)	0.0214 (0.0262)	0.0388 (0.0319)
165	0.0084 (0.0071)	0.0191 (0.0095)	0.0208 (0.0124)	0.0313 (0.0158)	0.0188 (0.0164)	0.0273 (0.0194)

The overall normalised scattered-radiation dose for the eye levels also had similar pattern of higher dose at lower eye level as shown in Table 3. There was a significant different in normalised scattered-radiation doses between the three eye levels ($H(2)= 15.401, p = <0.001$). Post-hoc results showed that the scattered-radiation doses were significantly different for eye levels of 165cm as compared to the 150cm and 135cm. The p-values were 0.015 and less than



0.001 respectively. However, there is no significant difference for the scattered-radiation doses between the 150cm and 135cm eye level. The results suggested that the higher eye levels would significantly receive less radiation dose than the lower eye levels. At lower eye level however, the scattered-radiation doses were similarly higher.

4. CONCLUSION

In conclusion, there is a pattern of increase or decrease in scattered-radiation doses at different positions and eye levels. The scattered-radiation dose was significantly higher near the phantom. However, those standing next to the patient with the eye level of 165cm received lower dose as the image detector act as a radiation absorber. In addition, the lower eye levels received higher scattered-radiation doses as compared to the higher eye levels. However, at farther positions, the doses were similarly low for all eye levels.

The findings from this study is only preliminary as it was only performed in PA projection with PTBD technical factors. The finding might not be applicable to other interventional angiographic procedure as scattered-radiation intensity that reached the eye of staff depends on many other variables. Thus, more interventional procedures and parameters need to be studied in order to confirm the findings from this preliminary study. Nonetheless, this study demonstrated the positions that give significantly lower radiation doses and showed that people with lower eye level has higher risk of receiving scattered-radiation dose. The findings from this study are useful for the angiography staffs of different eye levels to know which position is safer for them during the PTBD angiographic procedure.

ACKNOWLEDGEMENT

Special thanks to the members of Department of Radiology, International Islamic University Malaysia (IIUM) Medical Centre for providing venue for research and for sharing the knowledge. Appreciation to Dr. Ikuo Kobayashi for providing advices and suggestion regarding the use of OSLD.

REFERENCES

- [1] Ministry of Health Malaysia. (2016). *Guidelines for occupational radiation protection in medical interventional procedures* (pp. 1–19).
- [2] International Atomic Energy Agency (IAEA). (2018). *Radiation Protection and Safety in Medical Uses of Ionizing Radiation : Specific Safety Guide*. IAEA.
- [3] Rothrock, J. C. (2019). *Alexander's Care of the Patient in Surgery* (16th ed.). Elsevier.
- [4] Leyton, F., Nogueira, M. S., Saad, J., Dos Santos, J. A., Vano, E., Oliveira, M. A., & Ubeda, C. (2014). Scatter radiation dose at the height of the operator's eye in interventional cardiology. *Radiation Measurements*, 71, 349–354. <https://doi.org/10.1016/j.radmeas.2014.07.015>
- [5] Jacob, S., Michel, M., Spaulding, C., Boveda, S., Bar, O., Brézin, A. P., Streho, M., MacCia, C., Scanff, P., Laurier, D., & Bernier, M. O. (2010). Occupational cataracts and lens opacities in interventional cardiology (O'CLOC study): Are X-Rays involved? Radiation-induced cataracts and lens opacities. *BMC Public Health*, 10. <https://doi.org/10.1186/1471-2458-10-537>
- [6] ICRP. (2012). ICRP Statement on Tissue Reactions/Early and Late Effects of radiation in Normal Tissues and Organs - Threshold Doses for Tissue Reactions in a Radiation Protection Context. ICRP Publication 118. *Annals of the ICRP*, 41(1–2), 1–322.



- <https://doi.org/10.1016/j.icrp.2012.02.001>
- [7] Wong, J. H. D., Anem, L. E. A., Tan, S., Tan, S. K., & Ng, K. H. (2019). Eye lens dose of medical personnel involved in fluoroscopy and interventional procedures at a Malaysian Hospital. *Physica Medica*, 68(October), 47–51. <https://doi.org/10.1016/j.ejmp.2019.11.007>
- [8] Omar, A., Kadesjö, N., Palmgren, C., Marteinsdottir, M., Segerdahl, T., & Fransson, A. (2017). Assessment of the occupational eye lens dose for clinical staff in interventional radiology, cardiology and neuroradiology. *Journal of Radiological Protection*, 37(1), 145–159. <https://doi.org/10.1088/1361-6498/aa559c>
- [9] Willard, J., Heinrich, C., Hajiha, M., Cheng, J. W., Wagner, H., Ewald, J., Petersen, D., Nava, P. Ben, Escobar-Poni, B., & Baldwin, D. D. (2018). Does the Surgeon's Height and Distance From the C-Arm Affect Brain and Eye Radiation Exposure During Fluoroscopy? *Journal of Urology*, 199(4S), e841. <https://doi.org/10.1016/j.juro.2018.02.2026>
- [10] Okazaki, T., Hayashi, H., Mihara, Y., Asahara, T., Kimoto, N., Kanazawa, Y., Higashino, K., Yamashita, K., Yokoyama, S., Takegami, K., Hashizume, T., Cruz, V. L. E., & Kobayashi, I. (2019). Applicability of a practical calibration for the small-type OSL dosimeter for measuring doses from direct X-rays and penetrating X-rays affected by scattered radiation. *Progress in Nuclear Science and Technology*, 6(0), 22–25. <https://doi.org/10.15669/pnst.6.22>
- [11] Chusin, T., Matsubara, K., Takemura, A., Okubo, R., & Ogawa, Y. (2019). Assessment of scatter radiation dose and absorbed doses in eye lens and thyroid gland during digital breast tomosynthesis. *Journal of Applied Clinical Medical Physics*, 20(1), 340–347. <https://doi.org/10.1002/acm2.12486>
- [12] Nakamura, T., Suzuki, S., Takei, Y., Kobayashi, I., Pongnapang, N., & Kato, K. (2018). Simultaneous measurement of patient dose and distribution of indoor scattered radiation during digital breast tomosynthesis. *Radiography*, xxxx. <https://doi.org/10.1016/j.radi.2018.10.006>
- [13] Gasparian, P. B. R., Ruan, C., Ahmad, S., Kalavagunta, C., Cheng, C. Y., & Yukihiro, E. G. (2010). Demonstrating the use of optically stimulated luminescence dosimeters (OSLDs) for measurement of staff radiation exposure in interventional fluoroscopy and helmet output factors in radiosurgery. *Radiation Measurements*, 45(3–6), 677–680. <https://doi.org/10.1016/j.radmeas.2009.12.001>
- [14] Landauer, I. (2012). *microStar InLight Systems User Manual* (Issue Version 4.3). Landauer, Inc. https://doi.org/10.1007/SpringerReference_28001
- [15] Perks, C. A., Yahnke, C., & Million, M. (2008). Medical dosimetry using Optically Stimulated Luminescence dots and microStar® readers. *12th International Contress of the International Radiation Protection Association*, 10.
- [16] Haqqani, O. P., Agarwal, P. K., Halin, N. M., & Iafrati, M. D. (2013). Defining the radiation “scatter cloud” in the interventional suite. *Journal of Vascular Surgery*, 58(5), 1339–1345. <https://doi.org/10.1016/j.jvs.2013.01.025>

A solid teal vertical bar runs along the left edge of the page.

Information Technology, Engineering and Mathematics



The Selection of Low Cost Airline Using Fuzzy TOPSIS Method

Ainaa Syahirah Bahadun, Fatin Adilah Johari, *Nur Aziean Mohd Idris

¹Faculty of Computer & Mathematical Sciences (FSKM), Universiti Teknologi MARA,
40450 Shah Alam, Selangor Darul Ehsan, Malaysia.

*E-mail: nuraziean@fskm.uitm.edu.my

ABSTRACT

This paper applies the fuzzy technique for order of preference by similarity to ideal solution (TOPSIS) for solving multi-criteria decision-making problem (MCDM) in ranking the best low cost airline. This paper aims to identify the most preferred alternative of low cost airline among Air Asia, Firefly and Malindo Air according to FSKM UiTM Shah Alam students. The decision criteria identified are time performance, price of ticket, availability of flight and price of baggage. The ranking order of all alternatives can be determined by a closeness coefficient of each alternative by calculating the distance between Fuzzy Positive Ideal Solution (FPIS) and Fuzzy Negative Ideal Solution (FNIS). The criteria are ranked by using the defuzzification method. The result shows that Firefly is ranked as the most preferred low cost airline followed by Malindo Air and Air Asia. On time performance is ranked as the most important criterion in the selection of low cost airline by FSKM UiTM Shah Alam students.

Keywords: Fuzzy; TOPSIS; Low Cost Airline

1. INTRODUCTION

In the airline industry, there are generally two types of air carriers, which are the low-cost carrier and traditional carrier. The low-cost carrier is an airline that operates a point-to-point network, pays employees below the industry average wage, and offers no-frills service. The low-cost carrier is known for air carriers that offer bargain prices usually in exchange for reduced service, amenities, frequent flier rewards, or others. On the contrary, traditional carrier, also called the legacy carrier, is a large, full-service airline, which offers checked bag allowance, an allocated seat and other services. Full-service carriers operate on both national and international route network. The low-cost carriers have reshaped the traditional airline business model and have significantly changed the competitive dynamics of the industry [1].

In Malaysia, there are variety of airline services that offer both domestic or overseas flights, namely Malaysian Airline, Air Asia, Malindo Air, and Firefly. These airlines offer different services to the customer in order to keep the competition healthy. The services that are mostly provided by these airlines are low fares, food and beverage, customer service and others. The different customer has different preferences on choosing airline services that they want. Sometimes it is difficult to choose an airline that meets all the customer's needs. However, mostly all of them offer interesting routes and cheap prices and are the best option for those who don't want to spend a huge amount of money.

Technique for order of preference by similarity to ideal solution (TOPSIS) is the one method of the multi-criteria decision-making problem (MCDM) technique in ranking and selecting the best alternatives. MCDM method is a useful tool that helps to determine the responsiveness of the model and unpredictability of the outcomes that have been made [2].



TOPSIS is one of the classical methods that have been recommended by Hwang and Yoon [3] to solve MCDM problems where the ratings of alternatives and the weights of the criteria are given as crisp values. However, using linguistic variables are more realistic in modelling real life problems since crisp data are insufficient to solve real problems. Because of that, Chen [4] later further extended the concept of TOPSIS in fuzzy environment where linguistic assessments are used instead of crisp values.

Fuzzy sets and numbers are complementary to probability and statistics in modelling uncertainty, imprecision, and vagueness of data and information [5]. The idea of fuzzy sets proposed by Dr. Lotfi Zadeh in 1965 [6]. A key difference between crisp and fuzzy sets is their membership function. A crisp set has a unique membership function where as a fuzzy set can have infinite number of membership functions to represents it.

Previously, fuzzy TOPSIS have been applied to many problems such as in automotive industries [7,8] supplier selection of textile company [9] and hiring new employee process [10]. Fuzzy TOPSIS approach also has been used to rank the domestic airline services in Turkey from a managerial perspective which provides useful information to airline companies in order to improve their services [11].

In this paper, fuzzy TOPSIS is applied to rank the best low cost airline which evaluated from the perspective of FSKM UiTM Shah Alam students. The results help the students in choosing the most suitable airline services according to their preferences.

2. PRELIMINARIES

In this section we will cover some basic definitions and formulas that are used in our paper.

Definition 1

A triangular fuzzy number \tilde{A} can be defined by $\tilde{A} = (n_1, n_2, n_3)$. The membership function $\mu_{\tilde{A}}(x)$ is defined by:

$$\mu_{\tilde{A}}(x) = \begin{cases} 0, & x < n_1 \\ \frac{x - n_1}{n_2 - n_1}, & n_1 \leq x \leq n_2 \\ \frac{x - n_3}{n_2 - n_3}, & n_2 \leq x \leq n_3 \\ 0, & x > n_3 \end{cases}$$

where $\mu_{\tilde{A}}(n_2) = 1$ and $\mu_{\tilde{A}}(n_1) = \mu_{\tilde{A}}(n_3) = 0$.

Definition 2

Let $\tilde{A} = (n_1, n_2, n_3)$ and $\tilde{B} = (m_1, m_2, m_3)$ be two triangular fuzzy number.

Then the operational laws of these two triangular fuzzy numbers are as follows:

1. $\tilde{A} \oplus \tilde{B} = (n_1 + m_1, n_2 + m_2, n_3 + m_3)$
2. $\tilde{A} \ominus \tilde{B} = (n_1 - m_1, n_2 - m_2, n_3 - m_3)$
3. $\tilde{A} \otimes \tilde{B} = (n_1 m_1, n_2 m_2, n_3 m_3)$
4. $\tilde{A} \oslash \tilde{B} = (n_1 / m_3, n_2 / m_2, n_3 / m_1)$



Definition 2

Defuzzification is the conversion into a particular crisp value of a fuzzy number. The centroid method is the most common defuzzification method among all defuzzification methods. Fuzzy average defuzzification is used to calculate the rank of the weight of the criteria. The defuzzified value of set \mathcal{D} is given by

$$\mathcal{D}_c = \frac{(n_1 + n_2 + n_3)}{3} \quad (1)$$

where n_1 and n_3 are the upper and the lower value of the interval containing minimum membership values respectively.

3. FUZZY TOPSIS METHOD

The procedure of TOPSIS method as in Chen [4] is as follows:

- i. Accumulate the weight of criteria to get the accumulated fuzzy weight w_j of the criterion C_j and collect the decision maker's opinion to get the aggregated fuzzy rating x_{ij} of alternative A_i under criterion C_j . Assume that a decision team includes K persons, then calculate the value of the criteria and the rating of the alternative for each criterion as:

$$\mathcal{X}_{ij} = \frac{1}{k} [\mathcal{X}_{ij}^1(+) \mathcal{X}_{ij}^2(+) \dots (+) \mathcal{X}_{ij}^k] \quad (2)$$

$$\mathcal{W}_j = \frac{1}{k} [\mathcal{W}_j^1(+) \mathcal{W}_j^2(+) \dots (+) \mathcal{W}_j^k] \quad (3)$$

\mathcal{X}_{ij}^k indicates the rating and \mathcal{W}_j^k indicates the importance weight of the k th decision maker.

- ii. Construct the fuzzy decision matrix and fuzzy weight of all alternative as

$$\mathcal{D}_c = \begin{bmatrix} \mathcal{X}_{11} & \mathcal{X}_{12} & K & \mathcal{X}_{1n} \\ \mathcal{X}_{21} & \mathcal{X}_{22} & K & \mathcal{X}_{2n} \\ M & M & K & M \\ \mathcal{X}_{m1} & \mathcal{X}_{m2} & K & \mathcal{X}_{mn} \end{bmatrix}$$

$$\mathcal{W}_c = [\mathcal{W}_1, \mathcal{W}_2, K, \mathcal{W}_n]$$

Here, $\mathcal{X}_{ij}, \forall_{i,j}$ and $\mathcal{W}_j, j=1,2,\dots,n$ are linguistic variables. These linguistic variables can be described by fuzzy numbers, $\mathcal{X}_{ij} = (a_{ij}, b_{ij}, c_{ij})$ and $\mathcal{W}_j = (\mathcal{W}_{j1}, \mathcal{W}_{j2}, \mathcal{W}_{j3})$.

- iii. Construct the fuzzy normalization decision matrix. The normalized fuzzy decision matrix can be denoted by R .

$$R = [r_{ij}]_{m \times n}, \quad \text{where}$$

$$r_{ij} = \left(\frac{a_{ij}}{c_j^*}, \frac{b_{ij}}{c_j^*}, \frac{c_{ij}}{c_j^*} \right) \text{ and } c_j^* = \max_i c_{ij} \text{ (benefit criteria);}$$

$$r_{ij} = \left(\frac{a_j^-}{c_{ij}}, \frac{a_j^-}{b_{ij}}, \frac{a_j^-}{a_{ij}} \right) \text{ and } a_j^- = \min_i a_{ij} \text{ (cost criteria);}$$

- iv. Construct the fuzzy weight normalized decision matrix as

$$v_{ij} = [v_{ij}]_{m \times n}, \quad i=1,2,\dots, m, j=1,2,\dots, n \quad \text{where } v_{ij} = r_{ij} \times w_j \quad (4)$$

- v. Determine Fuzzy Positive Ideal Solution (FPIS) and Fuzzy Negative Ideal Solution (FNIS) as

$$A^* = (v_1^*, v_2^*, \dots, v_n^*),$$

$$A^- = (v_1^-, v_2^-, \dots, v_n^-),$$

Where $v_j^* = (1, 1, 1)$ and $v_j^- = (0, 0, 0)$, $j=1,2,\dots, n$.

- vi. Calculate the distance of each alternative from FPIS and FNIS, respectively. For each alternative, the calculation of distance from A^* and A^- can be expressed as

$$d_i^* = \sum_{j=1}^n d(v_{ij}, v_j^*), \quad i=1,2,\dots, m$$

$$d_i^- = \sum_{j=1}^n d(v_{ij}, v_j^-), \quad i=1,2,\dots, m \quad (5)$$

Where

$$d(m, n) = \sqrt{\frac{1}{3} \left[(m_1 - n_1)^2 + (m_2 - n_2)^2 + (m_3 - n_3)^2 \right]}, \quad m = (m_1, m_2, m_3) \text{ and } n = (n_1, n_2, n_3)$$

are two triangular fuzzy numbers.

- vii. Calculate the closeness coefficient (CC_i) of each alternative and rank each of alternative. Closeness coefficients are determined for each alternative in order to obtain a ranking. Each closeness coefficient is calculated using the equation given below.

$$CC_i = \frac{d_i^-}{d_i^* + d_i^-}, \quad i=1,2,\dots, m \quad (6)$$

The ranking order of the alternative is obtained according to the closeness coefficient. The best alternative is the one that has highest value CC_i .



4. RESULTS

The selection of the best airline services among students of UiTM Shah Alam from students' perspective conducted using the selection procedure presented below. The data were collected from the questionnaire given to the students. Nine decision makers evaluated the three airline services based on 4 benefit criteria [12]. The hierarchical structure of the selection process displayed in Figure 1. Linguistic variable for the important weight of each criterion and for the rating are described in Table 1 and Table 2, respectively. Then, the evaluation criteria and ratings of alternatives from nine decision makers are identified in Table 3 and 4, respectively. The fuzzy decision matrix, fuzzy weight and defuzzified value are calculated based on equation (1)-(3). The result is shown in Table 5. Table 6 shows the fuzzy normalized decision matrix. Using equation (4), fuzzy weighted normalized decision matrix is calculated as Table 7. The distance of each candidate from FPIS and FNIS is determined by using equation (5), as presented in Table 8. The closeness coefficient (CC_i) of each alternative is found based on equation (6). The result can be described in Table 9.

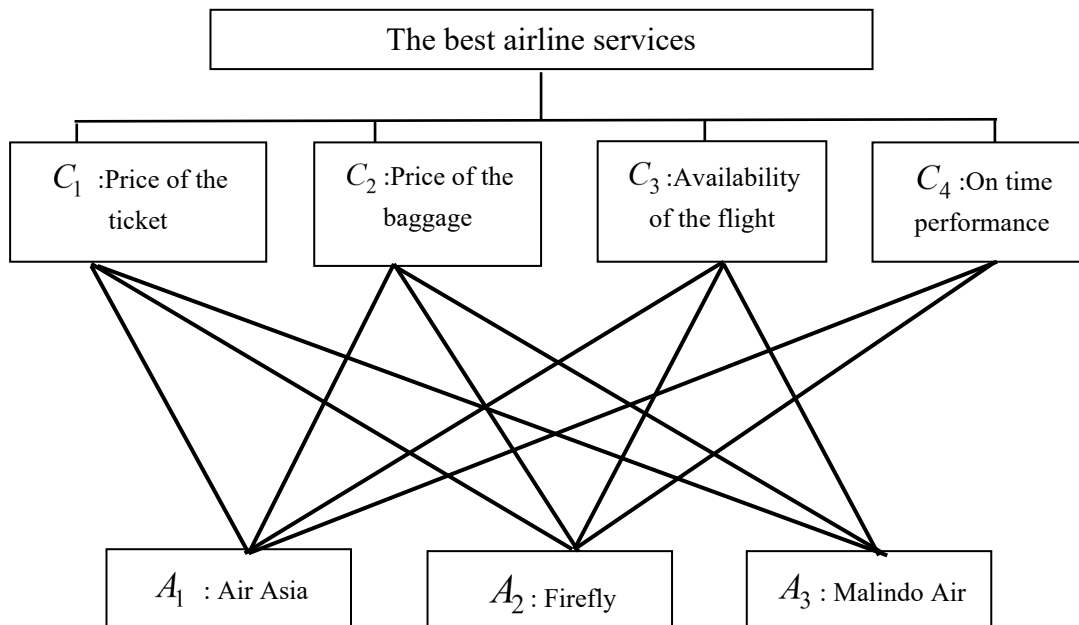


Figure 1: The Hierarchical Structure of the Selection Process

Table 1: Linguistic variables for criteria

Linguistic variables	Triangular fuzzy numbers
Very poor (VP)	(0,0,1)
Poor (P)	(0,1,3)
Medium poor (MP)	(1,3,5)
Fair (F)	(3,5,7)
Medium good (MG)	(5,7,9)
Good (G)	(7,9,10)
Very good (VG)	(9,10,10)

Table 2: Linguistic variable for the rating

Linguistic variables	Triangular fuzzy numbers
Very low (VL)	(0,0,0.1)
Low (L)	(0,0.1,0.3)
Medium low (ML)	(0.1,0.3,0.5)
Medium (M)	(0.3,0.5,0.7)
Medium high (MH)	(0.5,0.7,0.9)
High (H)	(0.7,0.9,1.0)
Very high (VH)	(0.9,1.0,1.0)

Table 3: The importance of criteria by the decision makers

Criteria	Decision maker								
	D_1	D_2	D_3	D_4	D_5	D_6	D_7	D_8	D_9
C_1	M	VH	VH	M	ML	VL	MH	M	VH
C_2	M	VL	VL	L	ML	L	M	M	H
C_3	VH	VL	VL	ML	H	H	VH	MH	M
C_4	VH	VL	VL	M	H	H	H	H	M

Table 4: The rating of three alternatives by the decision makers

Criteria	Alternatives	Decision maker								
		D_1	D_2	D_3	D_4	D_5	D_6	D_7	D_8	D_9
C_1	A_1	VG	G	VG	MG	G	G	G	MG	MG
	A_2	G	VG	G	MP	MG	G	G	G	MG
	A_3	VG	F	G	MG	VG	G	G	VG	MG
C_2	A_1	MG	MG	MG	F	MG	G	F	VG	MG
	A_2	MG	G	G	MP	MG	F	F	MG	MG
	A_3	MG	MG	MG	MG	VG	G	F	MG	MG
C_3	A_1	MG	F	F	MG	MG	VG	G	VG	MG
	A_2	MG	F	F	MG	MG	VG	G	F	MG
	A_3	MG	F	F	MG	MG	VG	G	F	MG
C_4	A_1	F	MG	MG	F	MG	MG	F	MP	MG
	A_2	MG	VG	VG	F	MG	MG	F	F	MG
	A_3	MG	MG	MG	F	MG	MG	F	MG	MG

Table 5: The fuzzy decision matrix, fuzzy weight and defuzzified value

	C_1	C_2	C_3	C_4
A_1	(6.78,8.56,9.67)	(5.22,7.11,8.78)	(5.67,7.44,8.89)	(3.89,5.89,7.89)
A_2	(6.11,8.00,9.22)	(4.56,6.56,8.33)	(5.68,8.56)	(5.22,7.00,8.56)
A_3	(6.78,8.44,9.44)	(5.44,7.33,9.00)	(5.68,8.56)	(4.56,6.56,8.56)
Weight	(0.47,0.61,0.73)	(0.19,0.32,0.49)	(0.46,0.59,0.70)	(0.48,0.62,0.73)
Defuzzification	0.60	0.33	0.58	0.61

Table 6: The fuzzy normalized decision matrix

	C_1	C_2	C_3	C_4
A_1	(0.70,0.89,1.00)	(0.58,0.79,0.98)	(0.64,0.84,1.00)	(0.45,0.69,0.92)
A_2	(0.63,0.83,0.95)	(0.51,0.73,0.93)	(0.56,0.78,0.96)	(0.61,0.82,1.00)
A_3	(0.70,0.87,0.98)	(0.60,0.81,1.00)	(0.56,0.78,0.96)	(0.53,0.77,1.00)

Table 7: The fuzzy weighted normalized decision matrix

	C_1	C_2	C_3	C_4
A_1	(0.33,0.54,0.73)	(0.11,0.25,0.48)	(0.29,0.49,0.70)	(0.22,0.43,0.68)
A_2	(0.30,0.51,0.70)	(0.10,0.23,0.45)	(0.26,0.46,0.67)	(0.29,0.51,0.73)
A_3	(0.33,0.53,0.72)	(0.11,0.26,0.49)	(0.26,0.46,0.67)	(0.25,0.48,0.73)

Table 8: The distance measurement

	d_i^*	d_i^-
A_1	2.35	1.88
A_2	2.37	2.30
A_3	2.34	1.89

Table 9: The Closeness Coefficient

	CC_i	Ranking
A_1	0.44	3
A_2	0.49	1
A_3	0.45	2

5. CONCLUSION

Table 10: The Ranking of all criteria

Criteria	Defuzzified value	Ranking
C_4 : On time performance	0.61	1
C_1 : Price of ticket	0.60	2
C_3 : Availability of flight	0.58	3
C_2 : Price of baggage	0.33	4

Table 10 and 11 show the ranking of all criteria and alternative. Based on the table presented in Table 10 on time performance criteria was ranked as the most important criterion for the airline service selected by FSKM students, followed by price of the ticket, availability of flight and lastly price of baggage. From table 11, three alternatives were rank by the value of the closeness coefficient. Firefly was the most preferable airline services among students followed by Malindo Air and Air Asia.

Table 11: The Ranking of all alternatives

Alternatives	CC_i	Ranking
A_2 : Firefly	0.49	1
A_3 : Malindo Air	0.45	2
A_1 : Air Asia	0.44	3

Fuzzy TOPISIS is one of the alternative ways to rank selection problem. Although this study is based on personal selection problem, but it can be also be applied to other problems involving managerial decision. As recommendation for future studies, this problem also can be evaluated by airlines personnel.

REFERENCES

- [1] O'Connell, J.F., & William, G. (July, 2005). Passengers' perceptions of low cost airlines and full service carriers: A case study involving Ryanair, Aer Lingus, Air Asia and Malaysia Airlines. *Journal of Air Transport Management*, 11(4), 259–272.
- [2] Maliene, V., Dixon-Gough, R., Malys (June, 2018). Dispersion of relative importance values contributes to the ranking uncertainty: Sensitivity analysis of Multiple Criteria Decision-Making methods. *Applied Soft Computing*, 67, 286–298. <https://doi.org/10.1016/j.asoc.2018.03.003>
- [3] Hwang, C. L., & Yoon, K. P. (1981). Multiple attributes decision making methods and applications. Berlin: Springer.
- [4] Chen, C.T. (2000). Extension of the TOPSIS for group decision making under fuzzy environment. *Fuzzy Sets and Systems*, 114, 1–9.
- [5] Stefanini, L., Sorini, L., & Guerra, M. L. (July, 2008). Fuzzy Numbers and Fuzzy Arithmetic. *Handbook of Granular Computing*, 249–283. doi:10.1002/9780470724163.ch12
- [6] Zadeh, L. A. (1965). Fuzzy sets. *Information and Control*, 8, 338–353.



- [7] Azizi, A., Aikhuele, D.O., & Souleman, F.S. (2015). A Fuzzy TOPSIS Model to Rank Automotive Suppliers. *Procedia Manufacturing*, 2, 159–164
- [8] Srikrishna, S., Sreenivasulu Reddy, A. & Vani, S. (2014). A New Car Selection in the Market using TOPSIS Technique. *International Journal of Engineering Research and General Science*, 2(4), 177–181.
- [9] Kargi, S.A.V. (2016). Supplier selection for a textile company using the Fuzzy TOPSIS method. *Yönetim ve ekonomi*, 23(3), 790–803.
- [10] Ramli, N., M. Yacob, N.A. (2007). Fuzzy TOPSIS Based on α Level Set for Academic Staff Selection. *Gading Business and Management Journal*, 11(2), 57–70.
- [11] Torlak, G., Sevkli, M., Sanal, M., & Zaim, S. (2011). Analyzing business competition by using fuzzy TOPSIS method: An example of Turkish domestic airline industry. *Expert Systems with Applications*, 38(4), 3396–3406.
- [12] Sokolovskyy, A. (2012). *Analyzing factors impacting students' choice between low cost and full-fare airlines* (Unpublished master's thesis). University of Agder, Norway.

Social Sciences & Humanities



Consumer Contracts: Revisiting the Malaysian Legislative Control and Judicial Intervention of Exclusion Clause

*¹Farhah Abdullah, ²Ong Tze Chin, ³Norhoneydayatie Abdul Manap, ²Mun Geet Ow Yong

¹Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, 43800 Dengkil, Selangor

²Faculty of Business, Communication and Law, INTI International University, Nilai, Negeri Sembilan

³Centre for Contemporary Fiqh and Sharia Compliance, Faculty of Islamic Studies, National University of Malaysia, UKM Bangi, Selangor

*E-mail: farha523@uitm.edu.my

ABSTRACT

The idea of contractual freedom seems to be irrelevant in consumer law protection. Hence, interventions from both legislative and judicial are meant to address issues related to consumerism. With Malaysia practicing common law, there have been attempts to amend the manipulating exclusion clause found in consumer contracts from the aspects of legislative and judicial control. When the legislative conduct was still not implemented before 2010, the exclusion clauses stipulated in consumer contracts have caused many cases of consumer abuse. The judicial inconsistency noted in the battle against oppression and widespread unethical behaviour among traders, as found in case-laws before the year 2010, seem to be causes for concern. Nonetheless, such unfair treatment due to consumer contracts has led to the spark of an amendment, particularly in Malaysia after the year 2010. The situation on the ground, however, requires more effort. The Consumer Protection Act (CPA) 1999 is still peppered with numerous ambiguities. As such, this paper looked into legislative control and judicial intervention related to the exclusion clause found in consumer contracts via content analysis as the methodology. At the need of the analysis, some suggestions are made to help solve the identified drawbacks of the status and propose a legislative solution to this problem in Malaysia in achieving a fair balance between the rights of consumers and corporate bodies in this area of the private law.

Keywords: Exclusion clause; consumer contracts; judicial intervention; legislative control; Part IIIA CPA 1999; Malaysia.

1. INTRODUCTION

The approach of paternalistic seems to be essential in protecting consumers, especially with the wide awareness of consumerism at the global scale in this new millennium, along with interventions of legislative and judicial aspects. In fact, this revolution in consumerism seems to dismiss the concept of laissez-faire that highlights freedom of contract at the era when consumer rights had been absent. In fact, the very notion of consumerism is born mainly because of increasing conceptions that were against the idea of laissez-faire. In this era, with strong hold of consumerism, freedom of contract is seen as an irrelevant adage due to its practice that neglects the rights of consumers. Freedom of contract is applied by those unethical to manipulate consumers by embedding exclusion clause.



Yates (1986) had defined 'exemption or exclusion clause' as "any clause in a contract or term in a notice that purports to restrict, exclude or modify a liability, duty or remedy that would otherwise arise from a legally recognized relationship between the parties". Such clause had been common during the 19th century primarily because of the strong concept of freedom of contract that was legal in trades and purchases. Meanwhile, Atiyah (1995) claimed "an exclusion clause may be in numerous forms, but they share one similar aspect, which is exemption from liability of a party that should be held responsible if the clause is absent".

Exclusion clauses come in varied types and classifying them is impossible (Poole, 2008). Moreover, new exclusion clauses are always generated to override the steps taken by the courts to put a halt to this tricky act. Generally, these exclusion clauses can be categorised into three types:

- i) Most common: These exclusion clauses are embedded in contracts to state exclusion from liability. For instance, liability exclusion from losses that are substantial, in which the clause may limit the payable liability to only a certain amount, such as the payable sum stipulated in a contract.
- ii) Other common forms: Clauses that place a limit to an available remedy by implying a short duration for breached claims or impossible conditions to obtain remedy, for example, transportation costs for faulty products.
- iii) More difficult to control: This kind of clause alters the obligation towards performance, instead of liability exemption, in order to ensure nil breach.

Syed Ahmad Alsagoff (2007) pointed out that, "these (exemption) clauses may appear in printed tickets, notices or receipts which are brought to the customers' attention at the time of the agreement which, in most cases, the consumers do not have time or energy to read the printed words. Although the consumers read them, they would probably not understand them. The consumers would only realize their limited rights upon a dispute all due to the exclusion clauses."

The consumers within the modern economy are faced with unequal bargaining power, thus demanding protection for those vulnerable and weak groups. The disparity in knowledge between consumers and traders has left consumers with insufficient information to ensure a fair and balance contract. Thus, consumer protection laws have been devised in order to ascertain a fair dealing between consumers and traders, especially in addressing exemption clauses that put consumers on the losing end. Laws linked to consumer protection blanket both public and private laws (Naemah, 2012). To Rachagan (2007), legislation of consumer protection ensures equality in bargaining power between consumers and traders by: (i) correcting the imbalance in economic power between individual buyer and traders for services and goods; (ii) reducing incidences of losses and deficits related to purchase by protecting consumers from unfair trade practices and unsafe products; and (iii) ensuring equitable distribution in the society for deficits through apt laws of product liability.

The two essential aspects for bullish economy are independent judiciary and contract law (Buckley, 2005). According to Sinnadurai (2011), the Malaysian courts have made use of the principles of common law to address cases related to exclusion clauses, for instance, *Parker v South Eastern Railway Co.*, *Chapelton v Barry UDC*, *Thornton v Shoe Lane Parking*, as well as *Olley v Marlborough Court Ltd*. Sakina (2009) asserted that legal cases involving exclusion clauses in Malaysia seem to have been recorded since late 1950s with the *Sze Hai Tong Bank Ltd v Rambler Cycle Co Ltd*. Most exclusion clauses dealt in Malaysian courts are related to



authorities from the ports due to contracts of bailment, while cases of exclusion clauses that involve consumers appear uncertain mainly because of the varied stances held by judges (Sakina, 2009).

In reality, most exclusion clauses have been embedded by traders in consumer contracts for exemption of liability at contract breaches. Regulating contract terms that are unfair would eventually have an impact upon businesses, especially those that employ consumer contracts that are of standard form, mainly because these regulations protect consumers with a trading environment that is fair. Two opposing concepts emerge in understanding the notion of contract, which are: (i) freedom of contract that limits rights of consumers, and (ii) fair contract with equal bargaining power that protects consumers, which is called 'principles of consumer protection'. Consumer protection emphasizes the paternalistic role of the government in protecting consumers via intervention by legislation. As such, this article probes into the legislative and judicial approaches in Malaysia towards terms that are unfair found amidst consumer contracts and present an evaluation on the effective recommended legal control upon terms that are unjust, specifically exclusion clause.

2. PROBLEM STATEMENT OF THE STUDY

Incomprehensible contracts are one of the main reason consumers do not read contracts. Consumer contracts are incomprehensible according to format (fine print, long lines, and small spacing) and language (including to overuse of legal terms). Consumers are unable to negotiate terms in contracts takes away the incentive for consumers to read and understand the contracts they sign. Even if the product is not a necessity, consumers may sign a contract without a careful reading because they expect that every term is accurate. In Malaysia, progression of contract law appears to display massive concern pertaining to consumer protection. The present contract law requires further improvisation in championing consumer rights. Unfortunately, exclusion clause and agreement contents are not governed by the Contracts Act 1950. Nik Ramlah Mahmood (1993) asserted the following:

The Contracts Act 1950, as the parent law, provides only the fundamental principles related to contract law. As such, particular provisions that deal with contract terms or contents are absent, including clauses or exemption of liability for traders. Perhaps, this is the reason for Malaysia to continue validate unfair clauses to consumers in its judiciary system.

In Malaysia, major legislative reforms and progressions have taken place to improvise protection of consumer since 1999. In reviewing the laws related to consumer protection enacted before 1999, several amendments and new laws have been introduced. The new laws generated in Malaysia for protection of consumers within this 21st century is in line with the National Consumer Policy introduced in 2002 with the aim, inter alia, towards strengthening the institutionally legal framework for protection of consumers in Malaysia, as well as to stay abreast with new legal and policy amendments within the global market. As for Malaysia, its consumer contracts are mainly governed by the Consumer Protection Act (CPA) 1999, the Sale of Goods Act 1957, and the Contracts Act 1950. Sakina (2009) elaborated that both the Contracts Act 1950 and the Sale of Goods Act 1957 neither protect consumer rights nor reckon an unfair clause or term in a contract. However, CPA 1999, which is not in any way prejudice to other contractual regulations, seems to minimise the impact that paternalistic legislation related to consumer rights.

Several cases in Malaysia have observed the increasing concern displayed by the courts regarding the embedded exclusion clauses in standard form type in many consumer contracts,



where intervention by courts appear to vary based on different ideologies. The main rules used are those of ‘incorporation’ and ‘construction’. In Malaysia, the principles of common law are employed to rule out liability exclusion based on sections 3 and 5 of the Civil Law Act 1956. Although the courts could not prescribe exclusion clauses due to the theory of Contract, strict regulations have been developed for using these exemption clauses when interpreting them as contra proferentum, as well as for use in contracts.

In Anthony Lawrence Bourke and Alison Deborah Essex Bourke v CIMB Bank Berhad Civil Appeal No W-02-(NCC)(W)-1345-07/2016, the appellants bought a piece of property on Jalan Sultan Ismail in Kuala Lumpur from developer, Crest Worldwide Resources Sdn Bhd, in 2008. However, to finance the purchase, they took a loan from the defendant bank in the same year. It was a term loan agreement where the appellants would service the monthly instalments and the bank would essentially pay to the developer progress payments whenever they were due. However, CIMB failed to make payment on one of the invoices. As a result, the developer terminated the entire sale and purchase agreement with the appellants. The appellants then lost their property due to failure of CIMB to pay the sum due to the developer. In 2015, the Bourkes sued the bank for negligence and breach of contract. The counsel for appellants claimed that the exemption clause 12 stated in the agreement was breached under section 29 of the Contracts Act 1950 and was against public policy.

Hence, it did not refer to an absolute exemption on the bank’s liability. Clause 12 of the Loan Agreement is exclusion clause that seems to exclude liability of the bank’s primary and general secondary obligations (CIMB Bank Bhd v Maybank Trustees Berhad and other appeals [2014] 3 MLJ 168 and Photo Production Ltd v Securicor Transport Ltd [1980] 1 All ER 556). The three-man bench chaired by Rohana Yusuf J with Vernon Ong Lam Kiat J and Hasnah Mohammed Hashim J in a unanimous decision held that the bank was liable for contract breach and for tort due to its refusal in making the progress payment of housing loan to the developer. The exclusion clause of liability stated in the agreement was deemed as non-sustainable and cannot protect the bank from its liability:

“... [55] In the circumstances we are of the considered view that Clause 12 contravenes section 29 of the Contracts Act, because in its true effect, it is a clause that has effectively restrained any form of legal proceedings by the appellants against the bank. ...Despite our findings on the breach by the bank, in this case, if Clause 12 is allowed to stay, it would be an exercise in futility for the appellants to file any suit against the respondent bank... [57]. We find the bank was in breach of the fundamental term of the Loan Agreement in failing to pay the Invoice in accordance to its term, which had directly caused SPA termination; causing the appellants to suffer loss and damage... We further find Clause 12 in effect is a clause that absolutely restrains legal proceedings and [hence] it is void under section 29 of the Contracts Act...”

3. RESEARCH METHODOLOGY

This legal research had employed legal approaches to gather, discuss, explore, elaborate, examine, validate, interpret, and present both the data and the outcomes. The data gathered were analysed by adopting the four legal research approaches: historical, jurisprudence, comparative, and analytical, as well as several critical approaches with a view of reforming the law on the given subject matter. The four major standpoints, as elaborated by Walker (1969), are given in the following:

...these are analytical, breaking down the problem-situation and ascertaining what elements compose it and what rules are applicable to each part of the subject and its



problems; the historical, ascertaining how and why these rules have come to be accepted and to take their modern form; the philosophical considering whether those rules are consistent with the needs of society, and with accepted ideas of right and justice; and the comparative, seeing how other societies at a similar stage of civilization face-up to the same or corresponding problems. For proper appreciation, that is, one must find out what the rules are here and now, what they once were and how, and why they come to be what they are, whether they are satisfactory judged by an ideal standard, and how they appear compared with the rules that are accepted elsewhere.

In addition, Terry Hutchinson stated “research which intensively evaluates the adequacy of existing rules and which recommends changes to any rules found wanting.” Doctrinal research is library-based that focuses on reading and analysing both primary and secondary related materials. The primary materials are the actual sources of the law, which reflect the legislation and the case, including application of stare decisis principle, where references shall be made to binding precedents. Next, secondary materials refer to commentary on the law studied, which are found in intervention textbooks and legal journals. More often, reference sources, such as legal encyclopaedias, case digests, case citators, and online databases, for instance Lexis Nexis, Wiley, Lawnet, Justcite, ISI, and Scopus journals, are required to index and to gain access to the primary sources. As such, the content analysis method, which is based highly on literature review, as well as data primarily retrieved from case laws and legislations in Malaysia, had been employed to gather data from online databases and analysed with the aim of providing a review of the Malaysian law, particularly on exclusion clause, along with its legislative control. In light of the above, this study incorporated these activities:

- i. Identifying the relevant rules and principles by examining the primary source of consumer laws in Malaysia, namely, the Consumer Protection Act 1999 (CPA 1999), the Sale of Goods Act 1957 (SOGA 1957), and the Contracts Act 1950 (CA 1950), along with several cases based on exclusion clauses;
- ii. Analysing the main problems of such rules and principles, as provided by the CPA 1999;
- iii. Suggesting new rules and principles in Malaysia to overcome the problems highlighted.

4. FINDINGS AND DISCUSSION

Regulations related to unjust terms in contracts can affect many business sectors, particularly trades that deal with consumer contracts that are of standard form type. These regulations ascertain a just trading environment and the protection of consumers. The Sale of Goods Act 1957 is one law in Malaysia that has an impact upon exclusion clause, which embeds significant principles stipulated within the case law. The Sale of Goods Act 1957 is meant to govern trade affairs of ‘business and consumers’ (B2C) and ‘business and business’ (B2B), but does not protect its consumers due to integration of exclusion clauses. In fact, section 62 of the Sale of Goods Act 1957 permits the exclusion of terms and conditions through ‘express agreement’. The section is read as follows:

Where any right, duty or liability may arise under a contract of sale by implication of law, it may be negative or varied by express agreement or by the course of dealing between the parties, or by usage, if the usage is to bind both parties to the contract.

According to Mohammad Ariff J., in the case of Sheila a/l Sangar v Proton Edar Sdn. Bhd. & Anor, CPA 1999 created a tribunal to uphold justice for consumers. Part IIIA of CPA 1999 lists the factors, where a tribunal or a court would consider analysing either procedural or substantive unfairness that are illustrative in nature, in which most items do not require much

judicial consideration as to their meaning, such as ‘without adequate justification’; ‘oppressive’; ‘unconscionable’; ‘reasonable standards of fair dealing’; which require more explanation (Sinnadurai, 2011). The terms are ambiguous, vague, and open for interpretation (Farhah, 2017).

In Malaysia, CPA 1999 appears to be the main statute that upholds consumer protection. It is under the jurisdiction of the Ministry of Domestic Trade, Co-operatives, and Consumerism; who is responsible for protection of consumers. The CPA has been influenced one way or other by legal progressions in Australia, New Zealand, Canada, and the United Kingdom (Naemah, 2012). The introduction of CPA 1999 possesses some extent to enhance consumer rights stipulated in contracts. CPA, however, upon its initiation in 1999, failed to address other important areas of protection, in particular, consumer protection in contract dealings that involve exclusion clauses to exempt traders of their contractual liabilities. Although section 6 of the CPA 1999 Act seems to prohibit contracting out the provisions of the Act, it has failed in blanketing the broad spectrum of exclusion clause in consumer contracts and has some drawbacks, thus disappointing both consumers and activist groups.

The CPA 1999 Act is very limited in its application. Section 2(4) states “this Act is supplemental in nature and without prejudice to any other law regulating contractual relations.” The term ‘without prejudice’ reflects placing CPA in an ‘inferior’ status, as compared to other legislations. Next, the term ‘supplementary’ literally means additional and complementary (Naemah, 2011). In this sense, CPA 1999 does not replace the existing law; it only supplements it by providing the consumer with additional protection above the existing legislation. Upon conflict with other legislation, other laws that regulate contractual relations shall prevail. The CPA 1999 legislation, however, shall not deter the operation of any other provision in other legislations, which impose a stricter duty on the seller or supplier than the legislation proposed. Thus, the CPA 1999 shall prevail in the absence of consumer protection provisions stated in the existing laws.

This major flaw detected in the Malaysian consumer protection law has been rectified with the initiation of Part IIIA of the Consumer Protection (Amendment) Act 2010. Part IIIA is embedded into the CPA 1999 so as to deal with unjust terms in consumer contracts. According to Pretam Singh and Rahazlan Affandi (2011), instead of enacting a wholly new statute, the Parliament has amended the existing CPA 1999 after embedding a new section into the existing Act 599, namely Part IIIA entitled ‘Unfair Contract Terms’. In dealing with terms that are unjust, the CPA 1999 has integrated a new principle to divide the aspect of unjustness into ‘substantive’ and ‘procedural’

Procedural unfairness refers to the very process of contract development. For instance, a purchaser is unaware of a term due to its small print at the time of signing a contract. Meanwhile, substantive unfairness focuses on the process outcome, for instance, the contract content. It is appropriate to distinguish between typographical and linguistic readability. Quite often a contract is physically illegible because of font size or even the colors and makes suggestions as to the font size, colors, layout and headings to conform to everyday language. According to Newman linguistic readability deals with "legal matters" and the use of "legal language." For the average consumer, a "legal" grammatical formulation may be incomprehensible and is often the most significant deterrent to consumers reading contracts. It is appropriate to simplify legal terms, passive verb usage and the avoidance of cross-references to assist in linguistic readability and understandable language.

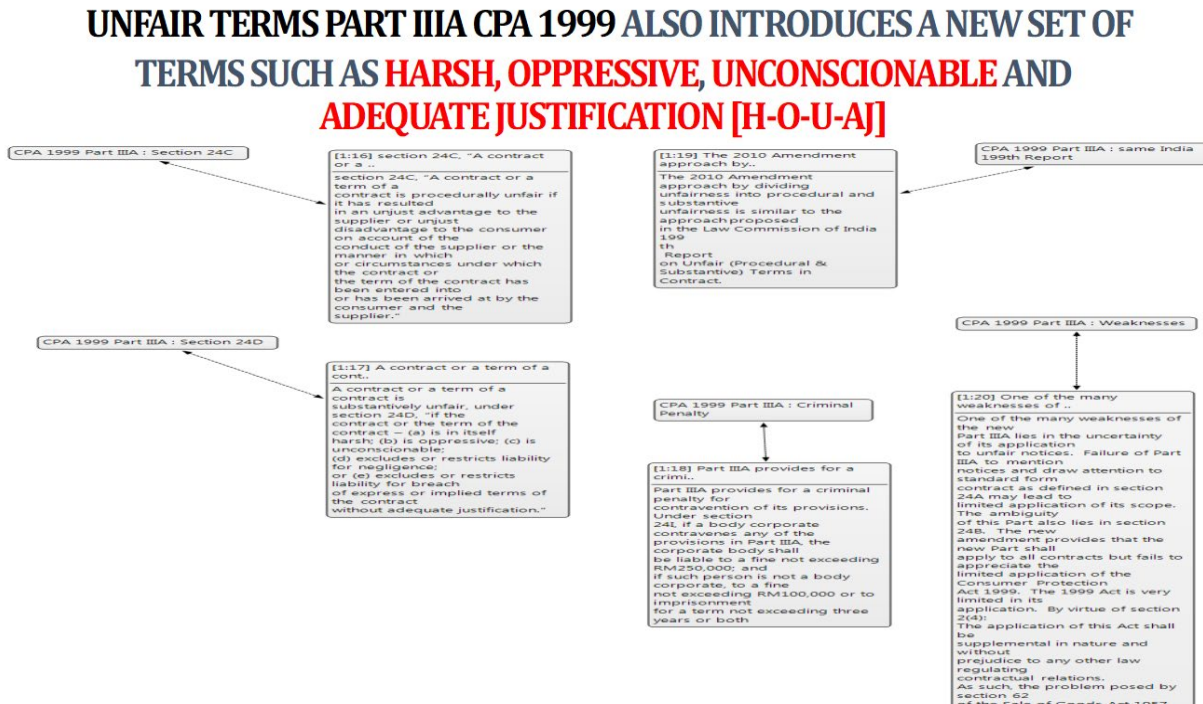


Exclusion of a party from negligence liability due to a clause refers to substantive unfairness. Furthermore, a term or a contract can be determined for its unfairness, either procedurally or substantively unfair. From the practical aspect, proving procedural unfairness seems to be more challenging, instead of proving substantive unfairness as the only relevant evidence is a copy of contract that is unjust. However, these two conceptions overlap and differentiating them is not easy. This explains the reason unjust terms in contract are not segregated in several nations. Section 24A(b) of CPA 1999 defines ‘standard form contract’ as “a consumer contract that is drawn up for general use in a particular industry, whether or not the contract differs from other contracts normally used in that industry”. This obviously incorporates contracts that are of standard form employed by many industries, such as insurance, banking, credit, and other supply of goods and services. Section 24(C) defines terms that are unfair as, “terms in a consumer contract which, with regard to all the circumstances, causes a significant imbalance in the rights and obligations of the parties arising under the contract to the detriment of the consumer.” Part IIIA emphasises consumer protection and abhors unjust terms found in B2C contracts of standard form, including unfair terms commonly found in invoices, sale documents, and receipts (Naemah, 2011). The phrase ‘significant imbalance’ has yet to be defined by the Act. In general, as far as the common law is concerned, it is up to the court or tribunal to determine if a term causes significant imbalance by referring not only to the term itself, but the whole contract as well.

Section 24C(1) of the CPA 1999 states that “a term or a contract is procedurally unfair if it has unjust advantage to the supplier or unjust disadvantage to the consumer on account of the conduct of the supplier or the manner in which or circumstances under which the contract or the term of the contract has been entered into or has been arrived at by the consumer and supplier”. Meanwhile, section 24C(2) offers a rather lengthy list that depicts the factors the tribunal or the court shall take into consideration to identify procedural unfairness. The main reason is to ensure no element of one-sidedness in terms of procedure and contents (Naemah, 2011). In procedural unfairness, phrases such as ‘knowledge and understanding’, ‘fine print’, ‘bargaining strength’, ‘linguistic disability’, ‘independent legal or other expert advice’, and other circumstances spelt out in section 24C(2), are technical terms that may overlap with the provision of Contracts Act 1950 linked with mistake, misrepresentation, and undue influence (Sinnadurai, 2011).

Section 24D(1) provides that a term or a contract is unfair substantively because “...if the contract or the term of a contract ...(d) excludes or restricts liability for negligence; or (e) excludes or restricts liability for breach of express or implied terms of the contract without adequate justification and if it involves harsh, oppressive and unconscionable.” Part IIIA, thus, covers liability exclusion for both contractual obligation and tort of negligence. The CPA 1999, however, does not define the words ‘unconscionable’, ‘oppressive’, and ‘harsh’ or the circumstances in which each will arise. For that, courts and tribunals should refer to prior judicial decisions as they are limited by stare decisis in interpreting what amounts to unconscionable, oppressive, and harsh terms. Consequently, it is argued that the bargaining power inequality doctrine refers to land law and should continue to be applied by courts and tribunals. Section 24D(2) reflects the circumstances for terms or contracts to be held void or unenforceable for substantive unfairness. Naemah (2011) asserted that section 24D(2), on general substantive unfairness, should be focused on the terms, instead of contract procedure. Figure 1: Part IIIA – Section 24C & 24D of CPA 1999 as shown below:

Figure 1: Part IIIA – Section 24C & 24D of CPA 1999

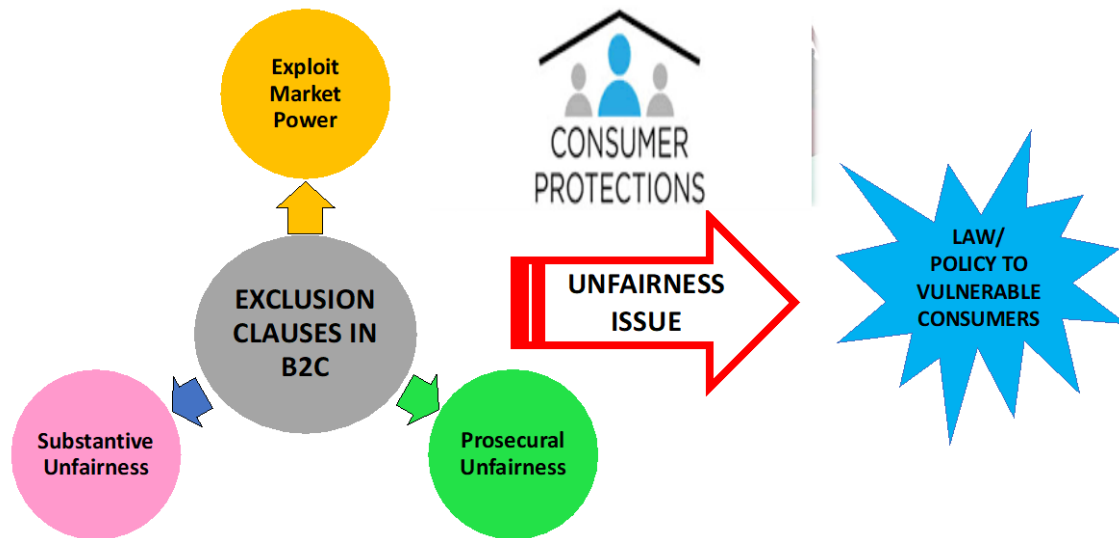


Section 24F permits the tribunal or the court to highlight a problem if a term or the contract itself is unjust, although none has brought up the issue in pleading. Next, Section 24G(1) states that the tribunal or the court can declare unfair term or contract under sections 24C and 24D to be void, whereas section 24G(2) stipulates that the rest of the terms found in the contract should be in force. Section 24I suggests contravention by others of Part IIIA as an offence. Hence, besides declaring the impugned unfair term or a contract as unfair, the tribunal can award remedies under section 112.

Meanwhile, section 2(g) in CPA 1999 stipulates that this Act cannot be applied to consumer contracts affected by electronic means, thereby excluding protection to consumers in e-commerce transactions (J., Sheela, 2012). Meanwhile, upon depending on the Contracts Act 1950 that governs contract formation, but not consumer protection due to its doctrine that is based on freedom of contract, refers to a general act that deals with contract formation (J., Sheela, 2012). Thus, vulnerability of consumers is exposed to exploitation for unfair trade practices to continue. In a nutshell, Figure 2: Theoretical Framework of exclusion clauses in consumer contracts in Malaysia and its relevance to the contract law/policy of exclusion clauses in consumer contracts (B2C) in Malaysia as shown below:

Figure 2: Theoretical Framework of exclusion clauses in consumer contracts in Malaysia

Relevance to The Contract Law/Policy



5. CONCLUSION

In the realm of consumer contracts, consumers must not suffer due to the inherent weaknesses of the statutory provisions. Ad hoc approaches on a case-to-case basis are not appropriate for B2C e-commerce contracts (J., Sheela, 2014). The repercussion would defy the whole nation. Hence, a specific legislative shift in controlling the exclusion clauses embedded in consumer contracts is in a dire need of change in Malaysia, not only due to the borderless nature of the block chain technology, but also consumer contracts in e-commerce trend and lifestyle. The present provision on terms that are unfair in the CPA 1999 has raised several significant issues to be considered for implementation. The legislative enhancement in controlling terms that are unjust embedded in consumer contracts in Malaysia displays the paternalistic initiative of the government in ensuring only a commercial environment that adheres to sustainable development goals (SDG). Thus, enacting specific laws as legislative measure is required for controlling exclusion clauses incorporated in consumer contracts, as the law must also be abreast with the current needs of the society and to protect consumer rights in this 21st century era.

The role of such legislation should be able to regulate exclusion clauses. Besides, the goal of the legislation is to reduce the gap of bargaining power inequality among traders with consumers, apart from seeking justice in e-commerce consumer contracts too, especially when protecting consumers is at the forefront. Recommendations are as follows:

- a) Insert new interpretation of vulnerable consumers in Part IIIA of CPA 1999 to include a separate group of consumers;
- b) Publish a Handbook on Consumer Protection for vulnerable consumers;
- c) Establishment of a webpage and database "unfair contract terms" and individual consumer guidance tailored to vulnerable consumers;
- d) Business and legal writers must write for the person with minimal experience; in other words, a first-time user of goods and services;
- e) To rethink coherent language policy and take it into account when assessing deceptive and unfair trade practices.



In this 21st century, enacting specific laws as a legislative measure is needed to control the use of exclusion clauses in consumer contracts as the law must also be abreast with the society's current needs and consumer protection and will be the best solution for the best interest of Malaysian consumers. The role of the law must be to regulate exclusion clauses as one of the unfair terms in consumer contracts when the aim or objective of the law is to analyse the legislative and judicial approaches in exclusion clauses in consumer contracts (B2C) in Malaysia. Thus, it will reduce the gap of inequality of bargaining power between traders and consumers and justice in consumer contracts too, especially when consumer protection is at the forefront. This paper efforts in mapping the unfairness of exclusion clauses in consumer contracts serve as a small role in identifying the linkage and the influence of the judicial ideologies in the interpretation resources based on the law governing exclusion clauses in consumer contracts (B2C) in Malaysia. The finding of the paper serves to aid the legislative policy makers in understanding the contractual parties in consumer contracts (B2C).

ACKNOWLEDGEMENT

The authors express their appreciation for the assistance and financial support from the Centre of Foundation Studies, Universiti Teknologi MARA (UiTM) Selangor Dengkil Campus.

REFERENCES

- [1] Borhanuddin Bin Haji Jantara v American International Assurance Co Ltd [1986] 1 MLJ 246.
- [2] Buckley, F.H. (2005). *Just Exchange: A Theory of Contracts*, London: Routledge. pp xi, 22,50.
- [3] Chapelton v Barry UDC [1940] 1 KB 532.
- [4] Chin Hooi Chan v Comprehensive Auto Restoration Service Sdn Bhd & Anor [1995] 2 MLJ 100.
- [5] Chris, T. & John, B. (1999). *Commercial contracts: A Practical Guide to Deals, Contracts, Agreements & Promises*. London: Kogan Page. p.89.
- [6] David, O. & Martin D. (2000) *Source book on Contract Law*. 2nd Edition. Cavendish Publishing. pp.444–446.
- [7] David, Y. (1982). Exemption clauses in contracts. pp.2,25.
- [8] Doreen, M. (2007). *Corporate Social Responsibility Beyond Law, Through Law, For Law: The New Corporate Accountability*, in Mc Barnet, Voiculescu & Campbell, *The New Corporate Accountability Corporate Social Responsibility and the Law*, London: Cambridge University Press. p.9.
- [9] Farhah Abdullah and Sakina Shaik Ahmad Yusoff (2017) *Intervensi Perundangan dalam Pengecualian Liabiliti bagi Kontrak Pengguna di Malaysia*. 2017 Tuanku Jaafar International Conference, Universiti Kebangsaan Malaysia, 20–23 November 2017 (Conference papers).
- [10] Farhah Abdullah and Sakina Shaik Ahmad Yusoff (2011) *Corporate integrity and accountability: A story of exclusion clauses in consumer contracts—a myth or reality*. 2nd International Conference on Business and Economic Research, Langkawi, Kedah, Malaysia, 14–16 March 2011. Available at: http://www.internationalconference.com.my/proceeding/icber2011_proceeding/378 (Conference papers).
- [11] Friedrich, K. (1943). *Contracts of adhesion-some thoughts about freedom of contract*. 43 Column L Rev 529.
- [12] Hugh, B. (1989). *Unfair Contracts in Britain & Europe*. 42 CLP 197. pp. 201–209,212.
- [13] Hugh, B. William, D.B. & Micheal, P. F. (2008). *Contract Cases & Materials*. 5th ed.



- Oxford: Oxford University Press. pp. 976–977, 1028–1029.
- [14] Jacolien Barnard, Where does the vulnerable consumer fit in a Comparative Analysis. *Journal of Consumer & Commercial Law*.
- [15] J. Sheela. *E-Commerce and Consumer Protection: The Importance of Legislative Measures* (2012) 16 JUUM 93–101.
- [16] Jill. P. (2008). *Textbook on Contract Law*. Oxford: Oxford University Press. pp. 271–273.
- [17] John, N. A. & Roger, B. (2006). *Understanding Law*. 4th ed. London: Sweet & Maxwell. pp. 142–143, 146.
- [18] John, A.G. G. (1981). *The Politics of the Judiciary*. A Fontana Original. p. 95.
- [19] Lord Denning. [1959–60]. The way of an iconoclast *J Soc Pub TL* 77. pp. 83–84.
- [20] Nik Ramlah Mahmood. (1993). Unfair Terms in Malaysian Consumer Contracts-The need for increased judicial creativity. *Asian Seminar on Consumer Law*. 9-12 August 1993. Kuala Lumpur.
- [21] Naemah Amin. 2011. *The Nature of the Law on Consumer Protection, Law & Commerce: The Malaysian Perspective*, in Mohammad Naqib, Kuala Lumpur: IIUM Press (Book).
- [22] Rahmah Ismail & Sakina Shaik Ahmad Yusoff. (2010). Corporate Responsibility through the Consumer Protection Laws in Malaysia. In Nazura Abdul Manap, Anita Abdul Rahim & Suzanna Mohamed Isa (Eds.), *Tuanku Ja'afar Law Conference 2010: International Conference on Corporate Governance and Corporate Responsibility*. 19–20 October 2010. (p.342). Law Faculty: Universiti Kebangsaan Malaysia.
- [23] Richard, D.G. (2004). *Law, Accountability and Globalization*. In George G. Brenkert (ed.). *Corporate Integrity & Accountability*. London: SAGE Publications. pp. 129, 16–167.
- [24] Sakina Shaik Ahmad Yusoff & Azimon Abdul Aziz. (2009) *Mengenali Undang-undang Kontrak Malaysia*, International Law Book Services. pp. 168–169.



Hisbah Institution and Its Role in Environmental Conservation: Reviewed from Islamic Civilization Perspective

¹Ahmad Jamil Jaafar, ¹Mohd Takiyuddin Ibrahim, *²Huzaimah Hj Ismail

¹Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus
Dengkil, 43800, Dengkil, Selangor

²Academy of Contemporary Islamic Studies (ACIS), Universiti Teknologi MARA, 40450,
Shah Alam, Selangor

*E-mail: huzaimah@uitm.edu.my

ABSTRACT

Islamic civilization has achieved glorious times through its achievements that have covered many areas of human need. Hisbah institutions have been established to ensure that all activities of human life are constantly monitored and refined to meet the requirements of Islamic teachings. This paper will explain the concept and the roles of Islamic institutions in Islamic civilization, especially in matters that related to the environmental preservation and conservation. The existence of this particular institution has made a huge impact in ensuring that the environment is clean and suitable for living. The principles of amar ma'ruf (command the good) and nahi munkar (forbid the evil) have been successfully implemented through the roles played by this institution.

Keywords: *Hisbah* Institution, *Amar Ma'ruf* (Command the Good), *Nahi Munkar* (Forbid the Evil), Environment

1. INTRODUCTION

The hisbah institution was an institution that has played an important role in Islamic countries and civilizations in the past. Among the roles of the institution is to regulate, maintain and monitor the general well-being of the Muslim community including political, social, economic, environmental, and individual activities. The role of the institution has been in place since the beginning of Islamic civilization to ensure that society's well-being protected and monitored parallel with Islamic law guidelines.

2. THE CONCEPT OF *AL-HISBAH*

The word '*al-hisbah*' comes from the verb *ihtasaba*, *yahtasibu*, *ihtisaban* which has several meanings. First, it is to expect a reward from Allah SWT (*talab al-ajr*). The usage of this meaning is based on the hadith of the Messenger of Allah:

"مَنْ صَامَ رَمَضَانَ إِيمَانًا وَاحْتِسَابًا غُفِرَ لَهُ مَا تَقَدَّمَ مِنْ ذَنْبِهِ"

"Whoever observes fasts during the month of Ramadan out of sincere faith, and hoping to attain Allah's rewards, then all his past sins will be forgiven." (Sahih al-Bukhari: 38)

The second meaning is to prevent from doing the acts that are prohibited by Islamic law. While the third meaning is derived from the word *ihtasaba*, *yahtasibu* is to think about the possibilities by doing calculation and estimation. The fourth meaning of *hisbah* is derived from the words *hasaba*, *yuhasibu*, *muhasabah*, that is to evaluate oneself or to practice *muhasabah*

(to examine one's conscience).

The use of this meaning is reflected in the events of the Caliph Umar al-Khattab who has directed Hatib bin Abi Balta'ah to raise the price of his goods or to leave the market. After they split up, Sayyidina Umar reconsidered his instructions (*hasaba nafsahu*) and went to Hatib's house. Sayyidina Umar later admitted that he had made a mistake and it was up to Hatib to sell his goods as he had promised.

The word '*hisbah*' that derived from the Arabic word '*hasaba*' also means to govern, to count, to examine, to prevent and to detain humans. (Hada, 2010: 35 - 38)

While according to Islamic law, '*al-hisbah*' means the practices of the responsible party in reviewing, administering, coordinating and ensuring that all one's work is in accordance with the principles set forth in *al-amr bi al-makruf wa al-nahy 'an al-munkar* (command the good and forbid the evil). (Hada, 2010: 38 -42). This matter is in line with many verses of al-Quran that claim to perform *al-amr bi al-makruf wa al-nahy 'an al-munkar*, and among them is the verse that describe Prophet Muhammad SAW through the word of Allah SWT in Surah al-A'raf: 157:

الَّذِينَ يَتَّبِعُونَ الرَّسُولَ النَّبِيَّ الْأُمِّيَّ الَّذِي يَجِدُونَهُ مَكْنُوبًا عِنْدَهُمْ فِي التَّوْرَةِ وَالْإِنْجِيلِ يَأْمُرُهُمْ بِالْمَعْرُوفِ وَيَنْهَاهُمْ عَنِ الْمُنْكَرِ ۚ لَهُمْ الْطَّيِّبَاتُ وَيُحَرِّمُ عَلَيْهِمُ الْخَبَائِثَ وَيَضَعُ عَنْهُمْ إِصْرَهُمْ وَالْأَغْلَالَ الَّتِي كَانَتْ عَلَيْهِمْ ۚ فَالَّذِينَ آمَنُوا بِهِ وَعَزَّرُوهُ وَنَصَرُوهُ وَاتَّبَعُوا النُّورَ الَّذِي أُنْزِلَ مَعَهُ ۙ أُولَٰئِكَ هُمُ الْمُفْلِحُونَ

"Those who follow the messenger, the Prophet who can neither read nor write, whom they will find described in the Torah and the Gospel (which are) with them. He will enjoin on them that which is right and forbid them that which is wrong. He will make lawful for them all good things and prohibit for them only the foul; and he will relieve them of their burden and the fetters that they used to wear. Then those who believe in him, and honor him, and help him, and follow the light which is sent down with him: they are the successful."

In addition, there were some intellectuals who have given some definitions of *hisbah*, including al-Nasir al-Haq who said *hisbah* is a complete manifestation of the judicial institution (*qudhah*) which is based on the understanding of the tauhid of Allah SWT.

Al-Mawardi defined *hisbah* as the act of invitation to do *ma'ruf* (goodness) when it is clearly abandoned, and the act of prevention from doing evil when it clearly done. Such definition was also given by Abu Ya'la al-Farra 'and al-Sunami.

Meanwhile, Imam al-Ghazali defined it as a complete expression that included the task of invoking the act of *ma'ruf* and preventing *munkar* (Hada, 2010: 12 -13). Al-Syairazi defined *hisbah* as an act of commanding good acts, preventing evil acts and improving the life of community.

Ibn Khaldun defined *hisbah* as the task of inviting in doing the righteous acts and preventing the evil acts (Hada, 2010: 13) In this context, al-Sunami emphasized that the real task of *muhtasib* (the person who performs *hisbah*) is to invite people to do the righteous acts and prevent them from doing evil acts in order to seek the reward of Allah SWT.

In conclusion, *hisbah* could be defined as a government institution that delegated to an appointed ruler, but later handed over to a special officer named *al-muhtasib* who is responsible in regulating activities related to economy, religion, health and urban administration. The

purpose of this regulation is to ensure that all activities are conducted in accordance with Islamic law, and will serve to punish those who found guilty (Abdullah Ngah, no date: 12 - 15)

3. *HISBAH* INSTITUTION IN ISLAMIC CIVILIZATION

History showed clearly that the existence of the *hisbah* institution went hand in hand with the development of Islam itself. This is because Islam is a religion that encourages people to do good deeds and prevent them from doing evil that can harm people. The practice of *hisbah* was clearly demonstrated in the time of the Prophet Muhammad SAW where there were some hadiths that show the conduct of *hisbah*. Among the hadiths is the hadith that narrated by Abu Sai'd al-Khudri RA: I heard the Prophet Muhammad SAW says:

" مَنْ رَأَى مِنْكُمْ مُنْكَرًا فَلْيُغَيِّرْهُ بِيَدِهِ فَإِنْ لَمْ يَسْتَطِعْ فَبِلِسَانِهِ فَإِنْ لَمْ يَسْتَطِعْ فَبِقَلْبِهِ وَذَلِكَ أَضْعَفُ الْإِيمَانِ "

"He who amongst you sees something abominable should modify it with the help of his hand; and if he has not strength enough to do it, then he should do it with his tongue, and if he has not strength enough to do it, (even) then he should (abhor it) from his heart, and that is the least of faith." (Sahih Muslim: 49)

At that time, the person who performed the task of *hisbah* called a market officer (*al-amil ala al-suq*) and a market supervisor (*sahib al-suq*) who was responsible for supervising business affairs, setting weights and measures, and monitoring business affairs. Said bin Said bin al-As was appointed as the supervisor of the market in Mecca, while Saidina Umar al-Khattab held the same position in Medina (Abdul Hasib Radwan, 1990: 38)

After Prophet Muhammad's death, *hisbah*'s task continued by the Khulafa al-Rashidin. Most of them had done this task on their own, besides appointing some helpers to ensure this task performed well and smoothly (Rashad Abbas Ma'tuq, 1982: 127). It has been reported that Saidina Umar al-Khattab supervising business activities in market, and once he hit a seller on the sidewalk who disrupted traffic. He also poured milk that mixed with water. In addition, he also hit the owner of animal that carried too much load, causing the animal to be tortured. On the other hand, Saidina Uthman was reported to have focused on public facilities and markets. Saidina Ali once advised the sellers to fear Allah SWT, provide adequate weights and measures, improve business performance, and monitor market conditions (Abdul Hasib Radwan, 1990: 139)

It was reported that Saidina Umar RA appointed al-Sa'ib bin Yazid with Abdullah bin Utbah as the rulers of the Medina market, and he also appointed women as his assistants where Sayyidah al-Syifa and Sayyidah Samra' binti Nuhaik were assigned to oversee the Medina market. (Alias Azhar, 2018: 57 - 68)

In the time of the Bani Umayyad government, the *hisbah* institution was still under the government. It was growing in line with the demands of society at that time. There were also assistants appointed to provide assistances in the supervision of the market and to monitor the morale of the community.

During the reign of the Bani Abbasid government, the title of *al-muhtasib* was used for the first time, and the *hisbah* institution was separated from other institutions at that time. This fact provided the opportunity and space for the *al-muhtasib* to administer this institution holistically and comprehensively (Siham Mustafa Abu Zayd, 1986: 62), in addition got help from the assistants called '*arif*' (the wise) and '*amin*' (the truthful). Caliph Abu Jaafar al-Mansur

appointed Abu Zakaria Yahya bin Abdullah as the head of the *al-muhtasib* during his rule (Zulfaqar Mamat, 2010: 115)

Therefore, the *hisbah* institution has played significant and important roles in Islamic civilization in ensuring that all aspects of human life implemented in accordance with Islamic law.

4. ROLE OF *HISBAH* INSTITUTION IN ENVIRONMENTAL CONSERVATION

In the history of the implementation of *hisbah*, there were basic things that need to be emphasized and prioritized. These things were *al-muhtasib*, *al-muhtasab 'alaih*, *al-muhtasab fih* and *al-ihtisab*.

According to Imam al-Mawardi, the field of duty of the *hisbah* institution could be seen in the following items: (Mohd Parid, 1991: 436)

- i. Matters related to the rights of Allah SWT.
- ii. Matters related to the human rights.
- iii. Matters related to the collective rights.

Al-muhtasib was the title given to the trustee who was responsible in performing the duties of *amr bi al-ma'ruf* (commanding the good acts) and *nahyu 'an al-munkar* (forbidding evil acts). The task divided into 3 categories, namely, those matters that involved Allah's rights, human rights and involved both rights of Allah SWT and human rights (Azrin, 2014: 27) Thus, all of these tasks can be divided into four scopes or sections: (Mohd Parid, 1991: 436)

- i. To regulate economic activities.
- ii. To monitor worship acts and matters that are against the law of religion.
- iii. To observe the health and supervising of medical industry.
- iv. To oversee the urban administration and maintaining the peace of the city.

The focus of *al-muhtasib's* field of work related to environmental conservation falls into the fourth section. In this particular section, the tasks of *al-muhtasib* can be divided into 3 scopes:

- i. To maintain the comfort and smoothness of public facilities. *Al-muhtasib* needs to ensure that public facilities such as clean water supply, walls, public buildings, mosques and so on are always in good condition and workable. *Al-muhtasib* also has the right to seek financial assistance from the Treasury Department for improving all the public facilities. In the absence of any fundings, *al-muhtasib* may raise funds from public donations with the prior approval from the government.
- ii. To resolve disputes between neighborhoods on minor matters that do not involve legal interpretation. Otherwise, the case will be taken to court to be settled by *qadhi*. The task of *al-muhtasib* is to resolve minor disputes that are clearly happened, such as problem of constructing a building or installing roof of a house that enters a neighboring land and the like. When a complaint is made to *al-muhtasib*, he should order the building or roof of the house to be removed. In the event of conflict of law, *al-muhtasib* must bring the case to court. If a tree's branches or roots enter a neighbor's area, *al-muhtasib* cannot remove or take it off because it is not the neighbor's fault. Neighbors also cannot complain about the



- discomfort caused by smoke coming out from their neighbors' kitchens, as well as the discomfort caused by an industry or work that legally valid.
- iii. To monitor the peace of public. The scope of this work includes cases of providing alimony to family members, attempts to delay repayment of debt by capable persons, acceptance of will and practice of wadi'ah (empowerment to someone for keeping the owner's property), marriage of widows, care of slaves, rules of the market, supervision of boaters and kindergarten teachers.

According to Abdul Malek A. al-Sayed, *al-muhtasib* was also responsible for protecting the burial ground from being used as a drinking place or as a place for business activities. All members of a community were also responsible for maintaining boundaries between genders on the streets and in the public baths. The pool must always be covered and kept clean (Abdul Malek, 1995: 160)

In addition, *al-muhtasib* also played a role in ensuring that no beggar come to ask for alms in the mosque on Friday and Sunday. *Al-muhtasib* also must ensure that no animals roam around the entrances of mosques and churches as their impurities could pollute the cleanliness of the places, and cause discomfort of those who come to perform worships (Abdul Malek, 1995: 161). All of these tasks underscore the importance of *al-muhtasib's* roles in ensuring good environmental sustainability for all people, as they visit places of worship, public places, and so on.

Other than that, *al-muhtasib* also played a role in ensuring that those who involved in the affairs of the market were honest in all matters of their dealings and businesses. For example; the milk to be sold not to be mixed with water in order to get more profit. The milk must be clean and pure. Besides that, the vegetables to be sold should also be cleaned first in the river or flowing water before being displayed for sale (Abdul Malek, 1995: 160). This kind of role proves that Islam emphasizes a clean environment, as *al-muhtasib* must enforce hygiene aspects in surrounding areas to the point of business transactions in the market. In this way, the sellers and the buyers will be honest and at the same time also preserving the environmental sustainability.

Moreover, *al-muhtasib* must also enforce the sale of oil in pure condition and it should not be sold near the places of worship. This is to ensure that there are no dirt and impurities in public places such as markets, shopping malls and so on. *Al-muhtasib* is also responsible for ensuring that livestock and farm animals slaughtered only in the market. The livestock also must ensure that it does not roam the road and does not hinder traffic and the public (Abdul Malek, 1995: 160). The animals also must ensure that they do not roam around the streets and do not hinder the traffics and the crowd (Abdul Malek, 1995: 160). This role is to avoid fraud and dishonesty in the transaction, as well as to enforce environmental conservation to ensure a clean and comfortable environment.

According to Abdul Malek A. Al-Sayed, in areas where there is a majority of Muslims, *al-muhtasib* also plays a role in ensuring that Friday prayers are performed accordingly in the right manner. Mosque's maintenance works are also under the supervision of *al-muhtasib*. The practice of drinking alcohol must be prevented and musical instruments must be prohibited from use at prayer times (Abdul Malek, 1995: 160)

Therefore, *al-muhtasib* must have certain qualifications to ensure that the assigned tasks are performed as efficiently as possible. Among the criteria to be met are sincere, fair,

knowledgeable, wise and patient (Mohd Miqdad, 2016: 67)

Al-muhtasab 'alaih was the accused party or the one who abandoned the good act or wrongdoer. This person will be penalized based on the mistakes made with no exceptions or privileges whether nearby or distant relatives, government officials, judges or professionals. No one is exempt from the punishment when it involves human relationships (Azrin, 2014: 34)

Al-muhtasab fih was the authority of *al-muhtasib* or something that is in the target area of *al-hisbah*. It involves two goals, namely, to command good acts and to prevent evil acts. It also encompasses three important elements: the rights of Allah SWT, the rights of human and the rights of both parties; the rights of Allah SWT and the rights of human (Azrin, 2014: 34)

Al-ihthisab was a form of action taken against those who involved in the *hisbah*. This action was not as easy as a judge sentences an offender on any wrongdoings, as *al-ihthisab* requires a gradual methods and strategies. It starts with simple actions as advice, penalty and then followed with heavy forms of punishments such as whipping and so on. These punishments intended to change the attitude of the offender whether they are aware of their guilt, and could receive awareness and consciousness or otherwise. The ultimate purpose of *al-ihthisab* is to make people aware that every wrongdoing they make will receive retaliation not only in the world but also in the hereafter. (Azrin, 2014: 35)

According to Huda Abdul Ghafur Amin, the *hisbah* institution also played a role in ensuring the preservation of the environment as it is involved in preventing evil acts and wrongdoings. She divided the roles of *al-hisbah* in environmental conservation including the aspect of economy, health, community and environment beautification (Huda Abdul Ghafur Amin, 2010: 187). In addition, the *hisbah* institution also played a role in protecting and managing the environment from any elements that may cause pollution and damage to the air, water, nutrition, medicine, noise, waste and the development of deserts (Huda Abdul Ghafur Amin, 2010: 227)

Based on the roles of the *hisbah* institution and the duties of the *al-muhtasib*, it is evident that Islam gives serious attention to the elements of environmental conservation in order to provide comfort and convenience to the people of a city. Strict and systematic enforcements could assist the development of Islamic municipalities and countries in line with the environmental conservation.

5. CONCLUSION

The *al-hisbah* institution has functioned for the sake of protecting the environment in Islamic civilization. Awareness of the society at that time was enhanced so that the community members could play their roles in reducing the damage and pollution to the environment. The roles of the *al-hisbah* institution were in line with the requirements of the *al-Maqasid al-Syariah* (objectives of Islamic law) namely; to protect the religion (*hifz al-din*), to protect the life (*hifz al-nafs*), to protect the mind (*hifz al-aql*), to protect the lineage/dignity (*hifz al-nasl/al-muruah*) and to protect the property (*hifz al-mal*). Thus the peace of mind, the balance of thoughts and the survival of future generations will be obtained through the preservation of the environment from contaminated elements.



REFERENCES

- [1] Abdullah Ngah (t.tarikh), *Hisbah Amar Ma'ruf Nahi Mungkar*, Kuala Trengganu: Urusetia Penerangan Kerajaan Negeri Terengganu
- [2] Abdul Fatah Mustafa al-Saifi (2010), *al-Hisbah fi al-Islam Nizaman wa Fiqhan wa Tatbiqan*, Iskandariah: Dar al-Matbu'at al-Jam'iyyah
- [3] Abdul Malek A. al-Sayed (1995), *Etika Sosial Dalam Islam*(Terj : Syed Putra Syed Ahmad), Kuala Lumpur: Dewan Bahasa dan Pustaka
- [4] Azrin Ibrahim (2014), *Amalan Hisbah Di Malaysia*, Kuala Lumpur: Dewan Bahasa dan Pustaka
- [5] Fadl Ilahi (1999), *Al-Hisbah Ta'rifuha Wa Masyru'atuha Wa Wujubuha*, Riyadh: Muassasah Maktabah al-Malik Fahd al-Wataniyyah (1999), *al-Hisbah fi al-'Asr al-Nabawi wa 'Asr al-Khulafa' al-Rasyidin*, Riyadh: Muassasah al-Jarisyi
- [6] Husayn Musttafa Ghanim (2015), *Islam and Protecting The Environment Against Pollution*, Makkah: Umm al-Qura University
- [7] Huda Abdul Ghafur Amin (2010), *al-Hisbah fi al-Islam Wa Dauruhu fi al-Muhafazah 'ala Al-Bi'ah*, Riyadh: Maktabah Malik Fahd li al-Wataniah
- [8] Mohd Parid Sheikh Ahmad & Mohd Azmi Omar (1991), *al-Hisbah Dalam Ekonomi Islam*(dalam Sheikh Ghazali Sheikh Abod, Zambry Abdul Kadir (Penyunting), *Pengurusan Perniagaan Islam*, Shah Alam: Hizbi
- [9] Sa'adan Man, Mohd Saiful Anwar Mohd Nawawi, Raihana Abdul Wahab dan Nurulhuda Ahmad Zaki (2016), *Maqasid al-Shari'ah: Aplikasi Dalam Aspek Sains dan Teknologi*, Kuala Lumpur: Jabatan Fiqh dan Usul, Akademi Pengajian Islam, Universiti Malaya
- [10] Surtahman Kastin Hasan (2018), *Ekonomi Islam : Pembangunan dan Alam Sekitar*, Kuala Lumpur: Dewan Bahasa dan Pustaka



A Study on the Effectiveness of Malaysian Legal Framework on Sexual Offences against Children to Curb the Paedophilia Activities in Malaysia

***Hariati Ibrahim @ Musa, Aliff Rahimi Abd Rahim, Mohd Luqman Hakim Azlan,
Muhammad Hadif Mohd Hamdan, Muhammad Zaki Mohd Zahid**

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus
Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: hariati80@uitm.edu.my

ABSTRACT

Paedophilia generally refers to a psychiatric disorder in which an adult being sexually interested in children. In recent years, society has become more aware of paedophilia cases especially after the conviction of Richard Huckle, a British man found guilty in possession of more than 20 000 images of child sexual exploitation. Another shocking case, the society were overwhelmed with the news of Nur Fitri Nordin, a Malaysian citizen who served five years imprisonment in the United Kingdom for possessing 601 photos and videos of children sexual abuse. In response to the alarming issues of paedophilia, the Sexual Offences against Children Act 2017 (SOAC 2017) was passed by Malaysia Parliament which covers wider aspects of child sexual abuse including child grooming, child pornography, and erotic physical acts to the children. The Act aims to protect children from sexual abuse by horrible adult predators. This is a major step to combat both online and offline sexual abuse against children. Paedophilia is part of sexual offenses against children, however, the specific term paedophilia does not appear in the current law. The objective of this paper is twofold. First is to explore about the paedophilia by discussing the definition of paedophilia from various disciplines. The second objective is to examine the Malaysian legal framework in tackling paedophilia issues in Malaysia. In doing so, the research explores 3 legislations that covers sexual offences against children which are Penal Code, Child Act 2001 and Sexual Offences against Children Act 2017.

Keywords: Paedophilia; Malaysia; Penal Code; Child Act 2002; Sexual Offences against Children Act 2017; child molester; sex offenders.

1. INTRODUCTION

Based on community studies, 1 in 10 Malaysian children are sexually abused. In 2016, the nations were shocked by the news of Richard Huckle, a Britain paedophile which was sentenced 22 years of imprisonment due to numerous charges of sexual abuse against children. Upon his arrest, the authority found more than 20 000 images of his immoral activity in his camera and laptop. He even writes a 60 pages manual called "Paedophiles and Poverty: Child Lover Guide". Huckle abused up to 200 children in Southeast Asia [1]. In another case, a Majlis Amanah Rakyat (MARA) scholar, Nur Fitri Azmeer Nordin was convicted for 17 offenses, possessing 30,000 explicit images and videos of child pornography at Southwark Crown Court [2]. Apart from these two famous cases, there are a plethora of cases of sexual abuse against children which requires immediate and serious attention from the lawmakers, government, and society. One of the major milestones to protect our children against sexual predators is the enactment of Sexual Offences against Children Act 2017 (SOAC 2017).



Paedophilia from Clinical Perspective

International Classification of Diseases and Related Health Problems, 10th Revision or ICD-10 classify paedophilia as someone with sexual longing and it affected person wellbeing apart from the person must at least 16 years old or have five years gap with the children but both ICD-10 and DSM-5 regard teenagers who engaged in sexual bond with 12-13 years old children do not fit the definition of paedophilia [3]. Based on the interview conducted with Dr. Asyraf Rahim, a clinical psychologist at Universiti Sains Malaysia Hospital, he stated that paedophilia can be characterized as a mental disorder. In reference to Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a paedophilic illness is characterized as intense sexual fantasies, urges, or behaviour involving children. He further added that paedophilia is a sexual orientation and associated with the paraphilic disorder, cluster B personality disorder. According to him, the paedophiles who commit sexual offenses against children shall be punished with the minimum sentence because the clinical treatment like psychotherapy is not sufficient enough. Paedophilia traits also can be indeed be argued, as there have been cases in which paedophilia has arisen within someone who has experienced brain abrasion while a number of men had shown alteration in their psychological reaction to the child sexual incitements [4]. However, the terminology of paedophilia can be seen as vague as various experts, who were competent about elements of paedophilia, possess different notions regarding defining paedophile upon its justification of one's behaviour, personality, and the severity upon which paedophile bring injury to the kids involved [5]. From the definitions, we can conclude that paedophilia is a disorder that only arose when there is a presence of children below 13 years old and if the adult engaging in a sexual relationship with teenagers, they do not fit the criteria given by the DSM-5 as a disorder but rather they may involve in the child sexual abuse. Besides, paedophilic disorder should be segregate properly as to fit the descriptions given in DSM-5 and ICD-10, the individual suspected as paedophilic patient should be checked if the only sexually attracted to the children, type of gender which they attracted to and whether the sensual impulse is restricted to incest [6].

Paedophilia from Legal Perspectives

Currently, there is no definite nor specific term and definition that describe paedophilia in UK laws as well as SOAC 2017. It can be hard to match the medical term of paedophilia with legal definition as the criteria of paedophilia itself as disorder and the age of children which in the criteria mentioned in DSM-5 and ICD-10 is different from what the age of children considered in both acts. Moreover, with the ambiguous and technical detail of how a person can be regarded as paedophilic, normal people or even professionals that do not work in psychology and medical field may find it tricky to understand true nature of paedophile and mostly they depend upon social understanding rather than clinical understanding [7]. Positivists which focus on paedophiles outlined paedophilia as a criminal act which they correlate paedophilia with the term 'child molester' so that it is possible to capture possible offenders and brought them to the court for conviction in which child molester is stated as paedophile that that breach the law by committing sexual acts with any children [8].

2. MALAYSIAN LAWS ON SEXUAL OFFENCES AGAINST CHILDREN

The Economist Intelligent Unit (2019) claimed that Malaysia ranked 23 out of 60 countries, on sexual abuse and exploitation, with a score of 54.5. The score indicates how a country's surroundings may aggravate the threat to sexual abuse and exploitation against children [9]. According to the Ministry of Women, Family, and Community Development answer in



parliament in July 2018, the number of sexually abused children decreased significantly over the year. The record consists of different types of offence such as rape, incest, molest, sodomy, and sexual harassment. In 2013, the total number of cases recorded was 2,973 case. However, in 2017, the total number of cases recorded was 2,134 cases. As of Jan-May 2018, there was a total of 510 cases recorded. Ministry of Home Affairs in May 2019 stated that from 2013 to 2018, the total of rape case recorded involving children below the age of 18 was 8,579 number of cases [10]. Malaysia has approved all major sexual exploitation of children (SEC) related conventions [11]. A huge step has been taken by the government in 2017 by introducing and implementing the Sexual Offense Against Children Act. In the case of *W Mohd Safie W Mustaffa v PP* (2019), the appeal made by the appellant was dismissed in High Court Malaya, Kuala Terengganu. The appellant which was a teacher in Maahad Tahfiz was charged for inciting a child to an act of gross indecency under s.377E of Penal Code. Referring to the case, the appellant is said to place his genital in the child's anus for approximately 30 times [12]. Although the appellant has committed this offense with different students, he was sentenced only 5 years of imprisonment and 8 strokes of whipping. Another case relevant to be seen on this issue is *Ahmad Hafizal bin Darusalam v PP* (2019) 1 LNS 1172. In this case, the appellant committed a sexual offense against his 9 years old cousin on their way to attend a wedding. The victim's mother realised that her child was sexually assaulted by the appellant in Hentian RNR Rawang. The appellant was sentenced to 12 years imprisonment and 4 strokes of whipping. The appellant was convicted under section 14 of SOAC 2017 [13]. The implementation of SOAC 2017 has seen a decreasing number of cases recorded from 2013 to 2017, however, the law should always be revised from time to time. This action is crucial to make sure that the existing law is relevant and applicable to society at all times.

Before SOAC 2017 was introduced, the legislation that protects the children is governed within the Child Act 2001 and complementary legislation such as the Penal Code. However, the provision does not provide enough protection from offenses such as grooming of children, victims evidence, and children abused used for the making, possession, and distributions of child pornography on the Internet. This article will discuss three Acts (Penal Code, Child Act 2001, and Sexual Offences against Children Act 2017) which contain provisions protecting Malaysian children from sexual predators.

Child Act 2001 (CA 2001)

Child Act 2001 (CA 2001) states in detail the definition of a child, responsibility of parents toward the child, and the rights conferred on a child. According to CA 2001, a child is described as someone below the age of eighteen years old and in relation to criminal proceedings, has attained the age of criminal responsibility as prescribed in Section 82 of Penal Code. Sexual Offense Crime against Children Act 2017, on the other hand, explained in detail the type of offense against children and the punishment. As an example, Section 14 explained physical sexual assault on children, where the offender may be sentenced to imprisonment not exceeding 20 years and liable for whipping. Section 43 of CA 2001 emphasized offenses against children such as using a child by means of prostitution and detain a child in a prostitution house against the child's will. Any act omitted that contravenes Section 43 of CA 2001 will result in a fine not exceeding RM50000 and imprisonment not exceeding 15 years.

Under Part XIV of CA 2001, a register shall be known as the "Register of Children" shall contain details of every case or suspected case of a child in need of protection, matter in relation as Director-General determine and the most important part is the details of persons convicted of any offense in which a child is a victim. Meaning to say, the public now can check if a person

has committed any sexual offense against children. Former Deputy Minister Hannah Yeoh of Women, Family and Community Development Ministry reported that the registry that effective on 1 April 2019 will contain the names of some 3 000 reported offenders from 2017 until 18 2019. The process is simple as the guardians or parents only needed to fill in the individual's IC number and relation with the individual to the Social Welfare Department [14]. Malaysia is committed to combatting the sexual exploitation of children. However, there is a loophole that must be addressed instantly to avoid the issue from getting bigger day by day.

Sexual Offences Against Children Act 2017 (SOAC 2017)

In order to fill the loophole and uncertainty regarding sexual crime against children, the government decided to introduce Sexual Offences against Children Bill specifically dealing with issues relating to children being sexually abused. The Sexual Offences Against Children Bill has received the Royal Assent on the 3rd of July 2017 and was gazetted on the 7th of July of the same year. It comes into force on 10 July 2017, 3 days after gazetted. The act was passed to safeguard the interest and well-being of children and to provide effective deterrence.

Table 1: Summary of sexual offences against children covered in Penal Code, Child Act 2002 and Sexual Offences against Children Act 2017

	Part	Provisions under SOAC 2017
Sexual Offences Against Children Act 2017 (SOAC 2017)	2: Offences relating to child pornography	s.5 Making, producing, directing the making or production of, etc., child pornography
		s. 6 Making preparation to make, produce or direct the making or production of child pornography
		s. 8 Exchanging, publishing, etc., child pornography
		s. 9 Selling, etc., child pornography to a child
		s. 10 Accessing, etc., child pornography
	3: Offences relating to child grooming	s. 11 Sexually communicating with a child
		s. 12 Child grooming
		s. 13 Meeting following child grooming
	4: Offences relating to sexual assault	s. 14 Physical sexual assault on a child
		s. 15 Non-physical sexual assault on a child
Penal Code	Part	Provisions under Penal Code
	16: Offences affecting human body	s.317 Exposure and abandonment of a child under 12 years by parent or person having care of it
		s.369 Kidnapping or abducting a child under 10 years with intent to steal movable property from the person of such child
		s.375 (g) With or without consent, when she is under 16 years of age
		s.377E Inciting a child to an act of gross indecency



Child Act 2001 (CA 2001)	Part	Provisions under CA 2001
	Chapter 2: Offence	s.43(1)(a) Sells, lets for hire or otherwise disposes of, or buys or hires or otherwise obtains possession of, a child with intent that the child is to be employed or used for the purpose of prostitution
		s.43(1)(b) Procures a child for purposes of prostitution or for the purposes of having sexual intercourse with any other person, either within or outside Malaysia
		s.43(1) (c) By or under any false pretence, false representation, or fraudulent or deceitful means made or used, brings or assists in bringing into, or takes out of or assists in taking out of, Malaysia, a child with intent that the child is to be employed or used for purposes of prostitution
		s.43(1)(d) Brings into Malaysia, receives or harbours a child knowing or having reason to believe that the child has been procured for purposes of prostitution or for the purposes of having sexual intercourse with any other person or for immoral purposes
		s.43(1)(e) Knowing or having reason to believe that a child has been brought into Malaysia in the circumstances as set out in paragraph (c) or has been sold, let for hire, or hired or purchased in the circumstances as set out in paragraph (a), or in contravention of any other written law receives or harbours the child with intent that he is to be employed or used for purposes of prostitution either within or outside Malaysia
		s.43(1)(f) Detains a child in a brothel against the child's will
		s.43(1)(g) Detains a child in any place against the child's will with intent that the child is to be employed or used for purposes of prostitution or for any unlawful or immoral purpose
		s.43(1)(h) By means of any advertisement or other notice published in any manner or displayed



		in any place offers a child for purposes of prostitution or seeks information for that purpose or accepts such advertisement or notice for publication or display
		s.43(1)(i) Acts as an intermediary on behalf of a child or exercises control or influence over the movements of a child in such a manner as to show that the person is aiding or abetting or controlling the prostitution of that child
		s.43(1)(j) Engages or hires, for any valuable consideration, a child to provide services for that person's sexual gratification
		s.43(1)(k) Attempts to do any act in contravention of this section

Redundancy Between SOAC 2017 and Penal Code

Based on the penal code, there is no specific legislation to differentiate the sexual offenses against children. However, the penal code still underlines a provision regarding child sexual abuse under statutory rape. For instance, in rape cases based on **section 375 (g)** provides that a man is said to commit rape when he has sexual intercourse with a woman age is below 16 years old with and without her consent. It is in contrary with the **section 2 (1)** of **SOAC 2017** which provides that all form of sexual offense prescribe in the law is applied to a person that under the age of 18 years old. It can be seen that the provision in the SOAC has specified the age that the law would be applied and also describe into the larger scope of sexual offenses against children.

For now, in the penal code, there is no detailed description of sexual offence among children and it did not provide a specific law to curb the current issue of sexual offenses against children. Following the recent cases of sexual offenses against children, it is important to add the new scenario of cases such as child grooming, child pornography, and erotic physical acts to the children. By referring to the penal code, the act does not clearly define an act of sexual offense against children but focusing more on a sexual crime committed by a man towards a woman under different circumstances. It is slightly different with the law provided in **SOAC 2017** which discuss the new cases and scenario of child sexual abuse with a lot of description and illustrations to make it easier for the court to interpret based on different situation. There is not much redundancy that exists between the provision in the penal code and **SOAC 2017**, due to the fact that **SOAC 2017** was drafted carefully and with complete detail of the current issue that occurred regarding child sexual abuse.

Comparison Between SOAC 2017 And Related Laws In UK

In assessing the effectiveness of Act 792, the comparative studies are adopted by comparing the relating provisions in both legislations of Malaysia and England. The comparison is made with the UK law as the common legal system applied in Malaysia is derived from the United Kingdom as a result of British colonization. However, the culture between the UK and Malaysia is different especially Malaysia is a bicameral system of jurisdiction in which the Syariah laws



may contravene with federal law. There are three categories of paedophilia activities criminalised by the Act which are child pornography, child grooming, and sexual assault. These offences will be highlighted through this discussion.

Offences Relating to Child Pornography

International law is viewed based on the definition of child pornography to evaluate the provision as applied in Malaysia. Based on the Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography (OPSC), article 2 (c) clearly defined child pornography as "any representation, by whatever means, of a child engaged in real or simulated explicit sexual activities or any representation of the sexual parts of a child for primarily sexual purposes". Meanwhile, section 4 of SOAC clearly defined child pornography as "any representation in whole or in part, whether visual, audio or written or the combination of visual, audio or written, by any means including but not limited to electronic, mechanical, digital, optical or magnetic means, or manually crafted, or the combination of any means". The legal definition by OPSC is wider than SOAC, which gives a basic outline of what is meant by child pornography. Based on Act 792, there are four considerations in determining a child under child pornography; a child; a person appearing to be a child; realistic or graphic images of a child; and realistic or graphic images of a person appearing to be a child engaged in sexually explicit conduct.

The OPSC does not clearly define the meaning of explicit sexual activities as compared with SOAC. SOAC defined sexually explicit conduct as sexual intercourse, lewd acts, bestiality, masturbation, sadistic or masochistic, an exhibition for a sexual purpose, and use of any object for lewd acts. However, the United Kingdom covers the offences of child pornography with the term of indecency [15]. The offences are covered by the Protection of Children Act 1978 (Act 1978) in England, Wales, and Northern Ireland. Based on the Act 1978, take or permit to be taken, distribute, possess, publish, or cause to be published any indecent photograph of a child are offences. However, there are several offences under SOAC which are more conclusive than Act 1978 as mentioned in Table 1.1. Furthermore, the Act 1978 does not define what is meant by 'indecency', therefore it left it to the judges to define the word. The child covered by the Act 1978 also interpreted as those who are 16 years old and below as compared with SOAC which covers children under 18 years old (section 2 of SOAC).

Offences Relating to Child Grooming

Sexual grooming referred to as a preparation process by the sexual predator to gain trust by any person in which the intention is to abuse sexually [16]. Mostly, children that susceptible to such cases are due to social media exposure. Dr. Shamsuriani, a chairperson of Malaysian against Pornography (MAP), mentioned that children who own the social media accounts and used it commonly would be more vulnerable towards online sexual grooming as reported by Malaysian Journal of Psychology 2018 edition. Part III of SOAC already criminalised sexual grooming against children as provided by sections 11, 12, and 13. The offences are sexual communication against the child, child grooming, and meeting following child grooming. However, there is a circumstance in which the sexual communication is not considered as child grooming as stated by section 11 (3) of SOAC for education, scientific or medical.

In the United Kingdom, the legislation that covers sexual grooming is based on the Sexual Offences Act 2003 (Act 2003) that applicable in England and Wales. Section 14, 15 and 15A make it an offence for arranging or facilitating the commission of child sex, meeting a child



following sexual grooming and sexual communication with a child. There is no clear distinction between both provisions of Malaysia and the United Kingdom, but, sexual communication against a child has no exclusion as provided by section 15A (2) (a) of Act 2003 regardless on what their purposes are as compared with section 11 (3) of SOAC.

Offences Relating to Sexual Assault

Many researchers expressed their ideas on what sexual violence is. According to the World Health Organization (WHO), sexual violence encompasses acts that range from verbal harassment to forced penetration, and an array of types of coercion, from social pressure and intimidation to physical force. Sexual assault is also included as sexual violence. Based on the SOAC, sexual assault is classified into two categories, section 14 as physical sexual assault on a child and section 15 as non-physical sexual assault on a child. An offence is committed when it involves the physical contact between any person towards a child or otherwise as stated by section 14. Section 15 further explained about the sexual assault involving non-physical contact for sexual abuse. In the United Kingdom, serious sexual assault includes rape, assault by penetration, or where features of the assault are intensified, such as use of drugs or other substances, abuse of position, use of a weapon, or use of violence [17]. Section 9 of Sexual Offences Act 2003 (Act 2003) is similar to the provisions of section 14 of SOCA which is an offence to make physical contact with a child. Section 10, 11, and 12 of Act 2003 provided the same provisions as a non-physical sexual assault as stated in SOAC, inter alia, causing a child to engage in sexual activity, engage in sexual activity in the presence of a child and causing a child to watch a sexual act. However, the provisions of Act 2003 that mentioned about the sexual assault of a child under 13 can be found in sections 6 and 7. Section 6 makes it an offence when a person intentionally penetrates the vagina or anus of another person with a part of his body or anything else whereby section 7 makes it an offence for a person to intentionally touch another person with a sexual touching for a victim of under 13 years old.

3. CONCLUSION

Based on the research conducted, Malaysian law is silent on paedophilia activities. The three main legislations covering sexual offences against children in Malaysia are Penal Code, Child Act 2001 and Sexual Offences against Children Act 2017, being the latest law aims specifically to protect children from sexual predators. The concept of paedophilia are vast since many different interpretations are available and current laws, by far do not accurately describe paedophilic offences. It is important to note that even though recent legislation such as SOAC 2017 and other laws cover wider ranges of child sexual abuse and heftier punishment, they are however do not cover paedophilia offence in particular. This is similar with legislations on sexual offences in other jurisdictions such as the United Kingdom. Based on research it is understood that paedophile is difficult to be explained in one specific definition as its meaning involve many considerations. This research suggests that further research to be conducted on this important and alarming issue for better understanding. The SOAC 2017 is the latest law and covers aspects of sexual offences found in two previous legislations i.e. Penal Code and Child Act 2001. The research believes that the current legal framework is clearer and make it easier for the court to interpret the case of child sexual abuse as it covers new offences such as child grooming and pornography. This research suggest that the society need to be educated on the ways to identify paedophile among the society and be more cautious of the dangerous surrounding where the sexual predators are prey for victims.



ACKNOWLEDGEMENT

This research is financially supported by Universiti Teknologi MARA. Cawangan Selangor, Kampus Dengkil. This research is an outcome of the Contemporary Global and Legal Exhibition 2020 (COGLIEx 2020) organized by the Department of Law, Centre for Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil with Perpustakaan Tun Abdul Razak Kampus Dengkil as co-organizer.

REFERENCES

- [1] The Straits Online (2019). Britain's worst paedophile who abused 200 Malaysian kids stabbed to death in prison
- [2] Sofea Susan. (2019, August 22). Kecoh pesalah pedofilia di UK kini penuntut PhD UKM, penyelia minta henti macam genius Matematik “Dia ada kelas tersendiri, saya bagi Thumbs up”: MstarOnline
- [3] Mohnke, S., Müller, S., Amelung, T., Krüger, T., Ponseti, J., & Schiffer, B. et al. (2014). Brain alterations in paedophilia: A critical review. *Progress in Neurobiology*, 122, 1–23. <https://doi.org/10.1016/j.pneurobio.2014.07.005>
- [4] Müller et al., 2014, as cited in Mohnke et al, 2014
- [5] Harrison, K., Harrison, K., & Booth, B. (2010). Managing high-risk sex offenders in the community (pp. 3–17). Willan Pub.
- [6] Pedophilia | Psychology Today. Psychology Today. (2020). Retrieved 21 May 2020, from <https://www.psychologytoday.com/us/conditions/pedophilia>
- [7] Harrison, K., Harrison, K., & Booth, B. (2010). Managing high-risk sex offenders in the community (pp. 3–17). Willan Pub.
- [8] Naudé, J. (2005). Reconstructing Paedophilia: An Analysis of the Current Discourses and the Construct of Close Relationships (Master thesis, University of Stellenbosch, Stellenbosch, South Africa). Retrieved from <https://core.ac.uk/download/pdf/37322834.pdf>
- [9] The Economist Intelligence Unit. 2018. Out of the shadows: Shining light on the response to child sexual abuse and exploitation
- [10] Working Group 3: Malaysia Report. (2019). Strengthening Legal Framework to Protect Children from Sexual Exploitation in Travel and Tourism.
- [11] ECPAT International. (2019). ECPAT Country Overview: Malaysia. Bangkok: ECPAT International
- [12] W Mohd Safie W Mustaffa v. PP 2019 10 CLJ 120 (MY).
- [13] Ahmad Hafizal Bin Darusalam v PP 2019 1 LNS 1172 (MY).
- [14] Choong, J. (2019, March 26). Child sex offender’s registry launched, 3,000 paedophiles listed. MalayMail Online
- [15] Bakar, M., Hajar, Y., Sarah, B., & Firdaus, M. (2018). The Sexual Offences Against Children Act 2017: Flaws in the Law. *Malayan Law Journal Articles*, 5, 2–26.
- [16] Pollack, D., & MacIver, A. (2015). Understanding Sexual Grooming in Child Abuse Cases. *ABA Child Law Practice*, 34 (11), 165–168.
- [17] Long, L., & Butler, B. (2018). Sexual assault. *The Obstetrician & Gynaecologist*, 20 (2), 87–93. <https://doi.org/10.1111/tog.12474>.



The General Performance of Children with Autism Spectrum Disorder while Working with Horses in Unmounted Activities

***Fatin Aqilanajwa Adenan, Nur Fadilah Darmansah, Kamaruzaman Soeed**

School of Biomedical and Health Science, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia.

*E-mail: fatinaqilanajwa@gmail.com

ABSTRACT

Individuals with Autism Spectrum Disorder (ASD) have difficulties in making routine decision, behavioural and emotional regulation. Equine-assisted interventions are belief to give positive effects in individuals with ASD. However, previous study has revealed that parents view the activity as just a fun leisure activity and the effect is still in the early stages of development. The general performance of children with ASD are measure through observation score using scale of 1 to 5; from far below standards to far above standards. All subjects undergo a duration of two months intervention and commit twice a week session. The unmounted activities with horses include grooming, leading, hose down, tacking up, plaiting and hose down. There are 10 subjects are involved in this study whom diagnosed with ASD. The age ranges from 5 to 9 years old. As a result, the general performance scores of the participants ($n=10$) during part 2; Learning stage ($M=24.6$, $SD=6.3$) is higher than part 1; Introductory stage ($M=20.4$, $SD=7.2$). For Introductory stage, 3 participants score below standard which total scores range from 21% to 40%. Another 5 participants meet the standards which total scores range from 41% to 60%. For Learning stage, only 1 participant is below the standard. While 8 participants meet the standards and above. However, the scores for most participants in each session are vary and inconsistent. They are performing well in certain session, but they score differ in another session. The general performance score of the participants is likely to be influence by some factors. Their mood, daily routine and companion would be the aspects that influence the subjects to give high commitment to the session or vice versa.

Keywords: Autism Spectrum Disorder; Equine-Assisted Intervention; Unmounted Activities; General Performance.

1. INTRODUCTION

This equine-assisted interventions for individuals with Autism Spectrum Disorder (ASD) are developing and likely in demand. Naturally, popular culture has favoured the activities and promoted the idea that horses have a beneficial quality for people with ASD. For years, horse riding therapy for disable kids has been practiced in Malaysia as alternative therapy. It was run to give chances to youngsters and youthful grown-ups with different disabilities for horse riding therapy. As the number of disabled children has increased over the years, the public is becoming more aware of this alternative therapy.

Up to now, the research has tended to conduct on the activities while riding the horse [1]. Thus, this study highlights on the unmounted or groundwork activities where the horsemanship skills are to be focus on for the participants. The positive evidence on the horse-related activities is undeniable. More recently, literature has emerged that offers contradictory findings about the equine-assisted activities [1,2]. Individual can build confidence, self-efficiency,

communication and trust during the therapy considering that horses have similar behaviour with human like social and responsive behaviour [2]. It is believed that there are evidence suggests that equine-assisted interventions for people with ASD are promising.

According to the comprehensive systematic review of equine-assisted interventions, there are prove of concept evidence that horse therapies can give positive value to children and adolescents with ASD. Children with ASD might encounter great variety of struggle in many aspects such as emotional, attentional, activity, thought, behavioural and medical problems [3]. ASD is known as neurodevelopmental disorder that have an impact on multiple developmental domains including social communication, behavioural, and cognitive domains [1]. The core impairment in ASD include difficulties in communication, presence of stereotype and repetitive behaviours and interest could be the three major deficits in children with ASD [4].

Equine-assisted intervention is aim to improve social, gross motor, and self-help skills in individuals. This alternative treatment uses unique qualities of horses for all the improvement of the individuals [5]. It is a widely held view that advancement of therapy as a treatment for ASD is equine-assisted activities. It is denoted by the use of the horse within an interdisciplinary approach [6]. There are some less traditional treatment modalities besides psychoeducational and psychopharmacological approaches to treating the symptoms of ASD. Horse related activities is a wide-ranging practice used globally for several physical and psychological diseases. The objective is to promote physical, emotional, cognitive and social growth of the riders [7].

The unmounted activities are more to develop relationship between the horse and ASD children. It is typically focus on horsemanship skills that aim at developing the trust and respect between the individuals and the horse. Horsemanship skills include grooming, taking care of, leading, and feeding horses [1]. The session will include involvement of side walkers which are assistance on both left and right sight of the horse to guide the children while working with the horse. The session will be conducted by the instructors and assistants. They must follow multifaceted lesson plans as the sessions include many procedures and precautions.

A previous study has come out with a perception from parents that involve their child in therapeutic horseback riding. Parents view therapeutic horseback riding as a fun leisure activity [8]. Parents thought that the activities not giving much beneficial outcome. It did not impact the behaviour of children with autism. Parents reported that therapy did not produce behaviour change in their children. In addition, another research found out that scientific research into the compelling use of this horse related activity in children with autism is still in the early stages of development [9]. Hence, this study aims to recognize the general performance scores of children with ASD while working with horses in unmounted activities.

2. MATERIALS & METHODS

Generally, this research comprises of 2 stages. Part 1 is Introductory stage and part 2 is Learning stage. In order to achieve the objective of this research, a research design had been outlined. All subjects undergo a duration of two months intervention and commit twice a week session. There are 8 weeks and 16 sessions totally. The duration for each session is 45 minutes. Each session has specific goals and activities that need to be accomplished. All session is conducted according to the lesson plan. All unmounted activities with the horse include grooming, leading, hose down, tacking up, plaiting and hose down.

The first part of the intervention is introductory stage. This stage offers the subjects sufficient time to get accustomed to the horse. They have some space to be able to overcome anxiety associated with novel activities, and build a rapport with the horse. The second part is learning stage where participants are get used to the horse and possibly to do task. During the treatment period, each individual is expecting to reach a standard and perform well. The quantitative method is implemented in this study through descriptive analysis. This study is a field test study and it involve the single subject research sampling.

There are 10 subjects are involved in this study whom diagnosed with Autism Spectrum Disorder (ASD). The age ranges from 5 to 9 years old. The characteristics of all subjects are responsive and understand instructions. This study involves single subject research with the sample size is (n=10). It is suitable in the fields of special education. Single subject research is use as this study intent to identify the general performance of the participants through the activities with horses. There are trained volunteers to assist participants with the unmounted activities to guide and steering the horse, provide cues and prompts as needed during the session.

Data collection for this study is measure through the observation score to indicate the general performance using scale of 1 to 5; from far below standards to far above standards. The following is Table 1 that describe the scale and score. Score 1: Far below standards, that indicates a subject that refuses to perform a given task. Score 2: Below standards, which specifies a subject who often shows a refusal at the beginning but still perform the task after that. Score 3: Meet standards, shows that a subject able to perform task with helps and guidance. Score 4: Above standards, means that a subject able to perform task independently. Score 5: Far above standards; designate to a subject that is very assertive in performing all task.

Table 1: Score; Level of Performance.

Score	1	Far below standards	Refuses to perform task
	2	Below standards	The child often shows the criteria or refuse at the beginning anyway, perform the task after that
	3	Meet standards	Able to perform task with helps and guidance
	4	Above standards	Able to perform task independently
	5	Far above standards	Very assertive in performing all task

3. RESULTS & DISCUSSION

The scores obtained for most participants are vary and inconsistent. They are performing well in certain particular session, but they score differ in another session. Figure 1 shows the scores attained by all subjects (n=10) for the first part of treatment. The observation score was obtained for each session. There are 16 sessions totally divided into 2 parts. The following bar chart shows the scores by each individual for the first part; Introductory stage (session 1 – 8). The descriptive analysis for the first part ($M = 20.4$, $SD = 7.2$) shows that the participants mostly meet the standards. The mode of scores is 3 which indicates that most participants meet the standards for the activities in the introductory stages.

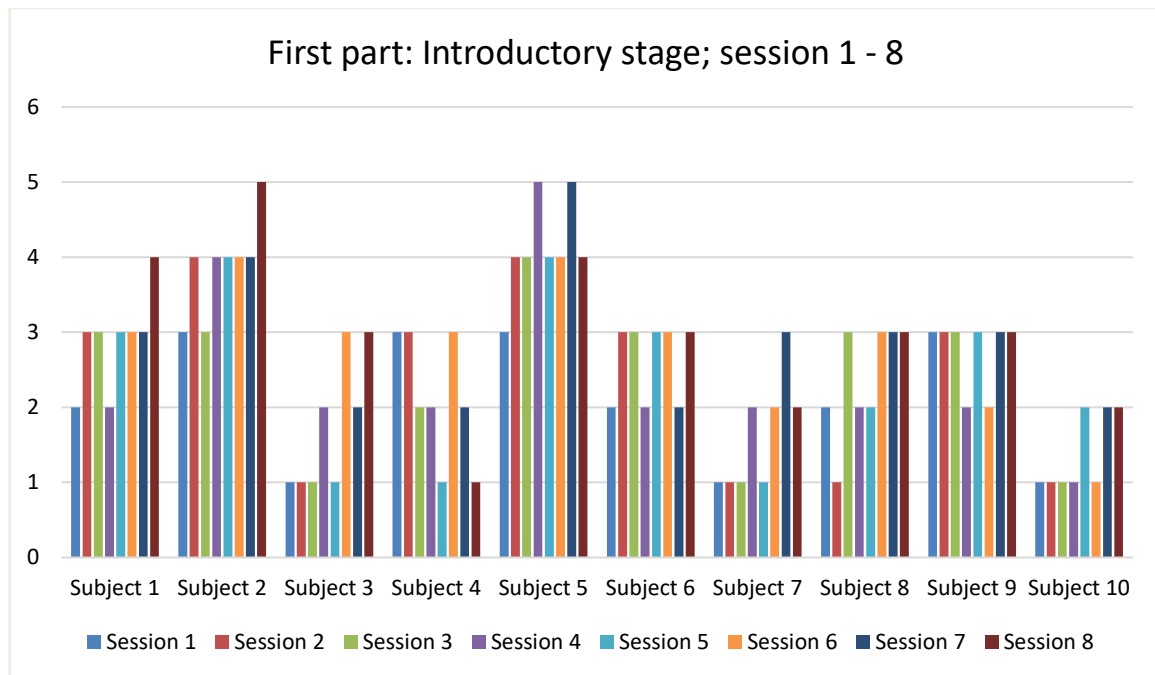


Figure 1: Bar chart; Performance score – Part 1: Introductory stage.

All participants appeared to show fluctuated reading score and inconsistency. Despite this, little progress has been made by the participants throughout all session in this introductory stage. Subject 2 and 5 shows a high score compared to the others. They are seen as very assertive and able to do task independently when their scores reach 4 to 5 in most session in this stage. As stated in the chart above, most participants are likely to score 3 which specifies that they are meet the standards and able to perform task with helps and guidance. Subject 10 has the lowest score which are 1 and 2 only that testify below standards which indicate as unable and refusal in performing task.

The following line graphs show the total scores of each subject in percentage. The descriptive analysis of the scores in percentage for the introductory stages ($M = 51$, $SD = 18.2$, $n = 10$) shows the performance score of the participants meet the standards for this study. Only 1 participant is indicating as far above standards with the highest scores 82.5%. In addition, no participants are signifying as far below standards since the lowest scores is 27.5%. In total, 7 participants represent a good achievement scores with 41% and above which is meet the standards of the treatment. Figure 2 displays the total scores of participants for the introductory stage.

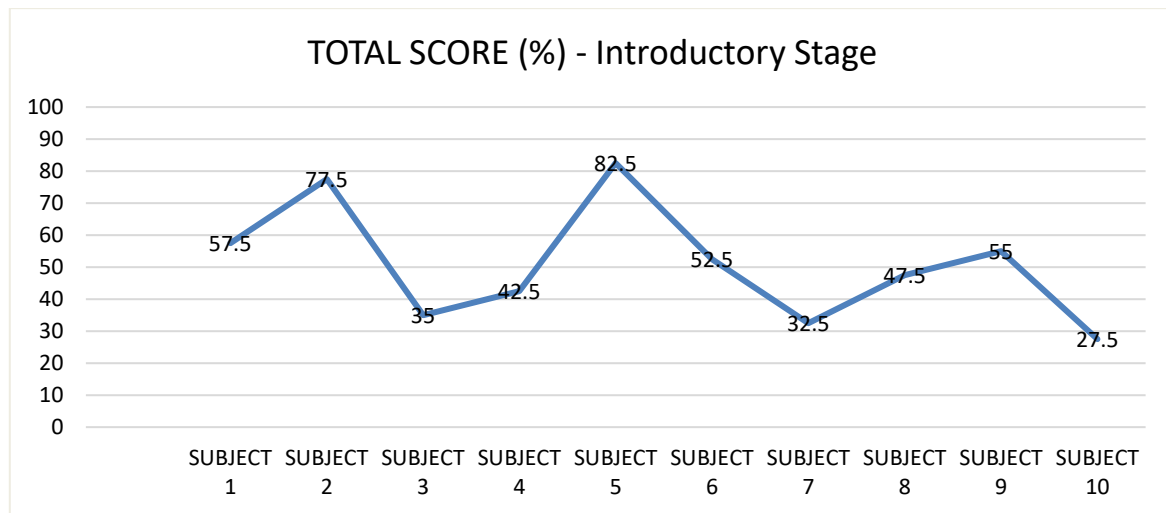


Figure 2: Line graph; Total score (%) – Part 1: Introductory stage.

The section below describes the results that shows the scores by each individual for the second part; Learning stage (session 9 – 16). In this stage, most participants meet the standards with the descriptive analysis ($M = 24.6$, $SD = 6.3$). Moreover, the participants in the learning stages appear to score higher, meet the standards and above with the mode of scores is 3. According to Figure 3, the scores of subjects 5 and 6 increases by the end of session. However, subject 5 still have the highest score in line with the introductory stage. Subject 5 is designate as participant that perform well throughout the treatment given. Low performance shown by subject 10 the performance scores mostly is below standards.

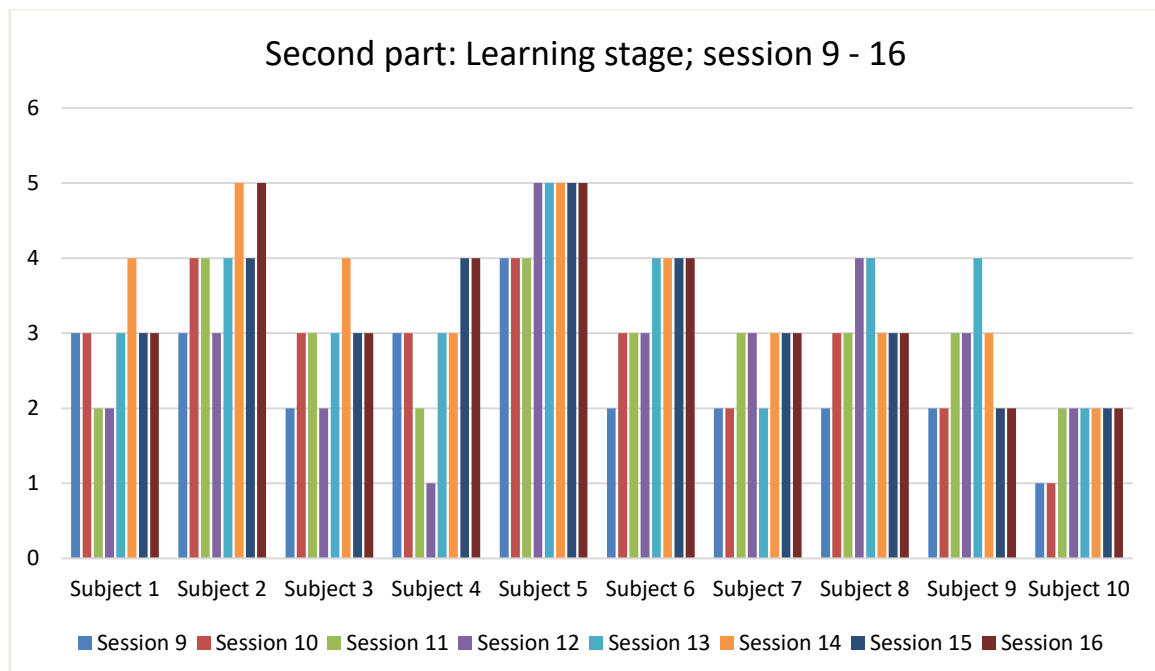


Figure 3: Bar chart; Performance score – Part 2: Learning stage.

Figure 4 reveals that there has been an increase of total scores of the participants in learning stage. The line graph shows the total scores of each subject in percentage. The performance score of the participants meets the standards for this part with the descriptive analysis of the scores in percentage for the learning stages ($M = 61.5$, $SD = 15.8$, $n = 10$). What can be clearly seen in this graph is the highest rate of total scores by the participant that is 92.5%. Overall, 9 participants represent a good achievement scores with 41% and above which is meet the standards of the treatment. Only 1 participant is signifying as below standards with the lowest score 35%. Additionally, no participants are label as far below standards.

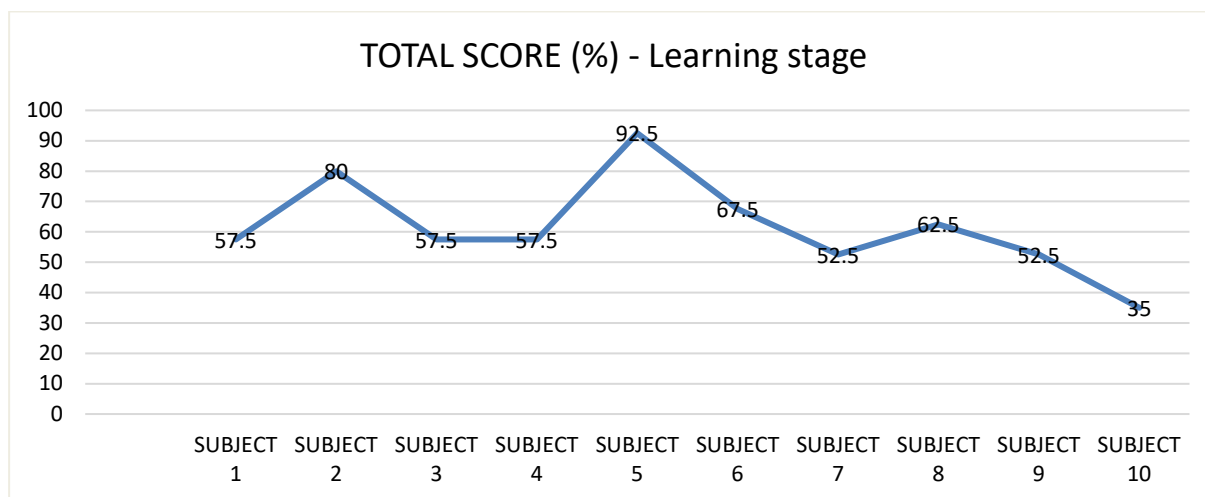


Figure 4: Line graph; Total score (%) – Part 2: Learning stage.

The total number of participants whom meet the standards and above is higher in the learning stage compared to the introductory stage. For Introductory stage, 3 participants score below standard which total scores range from 21% to 40%. Another 5 participants meet the standards which total scores range from 41% to 60%. For Learning stage, only 1 participant is below the standard. While 5 participants that meet the standards and 3 participants are above the standards. Number of participants that meet the standards and above is increase might due to the adaptation to the activities with horses. They are well adapted to horses and start to get used to work around horses.

Table 2: Performance total score.

Overall Performance	Range of Marks		Number of Participants	
	(40)	(100)	Part 1	Part 2
Far below standards	1 – 8	1 – 20	0	0
Below standards	9 – 16	21 - 40	3	1
Meet standards	17 – 24	41 - 60	5	5
Above standards	25 – 32	61 - 80	1	3
Far above standards	33 – 40	81 - 100	1	1

In general, the mood of the subject during involvement of the session is important in make sure they are able to do task. Their state of mind or feeling would influence their performance score. Most participants perform well in some sessions and perform below the standards in another sessions. It is due to their emotional state during the session that give effect on their commitment to fulfil the task. Moreover, disturb in their routine is another point to add. Changes



in their routine such as sleep late or too tired in previous day would also affect their general performance score. Interfere their normal arrangement of sleep or daily routine activities might affect their mood. Thus, their general performance score would differ from the other who meet the standard of performing.

Furthermore, their companion that they brought along to the sessions may affects their general performance in accomplish the task. Some of the participants would act differently when their companion is nearby. Some subject wanted to have their brother or siblings throughout the session. Some of the subjects cry out for their mother to be all over the session. Besides, some task with the horse would influence their interest. Grooming activities is most likely unfavourable to those participants that obtain lower scores. This is because they become very sensitive to the fur. To those who still not get used to the horse, they tend to avoid to do grooming task. Sensory. Some of the subjects switch to tantrum as the assistant keep encourage them to continue the grooming task.

Additionally, some participants have trouble to be introduce to a new task. Few subjects are reluctant to do a new task. Their adaptation period is longer than the other participants. Each time a new task was introduce; they might obtain a lower score for the session. Even though the given task is simple such as labelling and match part of the horse, they unable to do the task. Some of the participant would refuse to perform task and not give commitment as working with the horse may new to them. Certain participants may attain high scores for most session. This is due to their personal background which they are commit to extensive therapy class. Thus, their character and personality are alike to typical developing child. According to their well adaptation and good learning spirit, they appear very assertive in performing task. Thus, they tend to scores high in most sessions.

4. CONCLUSION

Overall, most participants show improvement in their performance throughout the two months intervention while working with horses. The general performance scores of the participants during part 2; Learning stage is higher than part 1; Introductory stage. For Introductory stage, 3 participants score below standard as for Learning stage, only 1 participant is below the standard. However, the scores for most participants in each session are vary and inconsistent. The general performance score of the participants are likely to be influence by some factors.

The influence factors include the mood of the participant during the session and disturb in their daily routine. To some participants, if their emotional and feeling state is good, they tend to give highly commitment to the session. Then, as their daily routine is not disturbed, they appear to be very engaged to the task given. There is other aspect that influence the performance score as some participant would not take part in the session as their companion is afar. Moreover, some subjects tend to get involved to a certain task only. They would attain a lower score in the task that they are not go in for.

The findings of this study suggest that one possible implication of this study is regarding the horse related activities and children with ASD. Taken together, these results suggest that horse related intervention might help to increase the general performance of the children with ASD. Strategies to enhance their performance might involve a strict discipline in their routine. There would therefore seem to be a definite need for a guideline for the children to involve with equine activities. In addition, this study will come up to the improvement of horse-riding therapy in Riding for Disabled Association (RDA) Malaysia. The outcome from this research

could contribute to the body of knowledge in this field.

Moreover, this study helps in providing awareness to community in Malaysia regarding horse related activities and its benefits. Therefore, horse riding therapy and unmounted activities would be preferred as alternative therapy for autistic. The research would have been more relevant if a wider range of type of disabilities has been explored in these horse related activities. The study would have been more interesting if it had included the activities on horse or mounted activities. Also, more sample size of the participants might contribute to more significant results.

ACKNOWLEDGEMENT

This research is apparently supported through the project KTPRIG 2020, Equine Therapeutic: Riding for Special Need and Ecology Sustainability. RJ130000.7351.4L432. The data presented, the statements made, and the views expressed are solely the responsibility of the author.

REFERENCES

- [1] Srinivasan, S. M., Cavagnino, D. T., & Bhat, A. N. (2018). Effects of equine therapy on individuals with autism spectrum disorder: A systematic review. *Review journal of autism and developmental disorders*, 5(2), 156–175.
- [2] Peters, B. C. M., & Wood, W. (2017). Autism and equine-assisted interventions: a systematic mapping review. *Journal of autism and developmental disorders*, 47(10), 3220–3242.
- [3] Fournier, K. A., Hass, C. J., Naik, S. K., Lodha, N., & Cauraugh, J. H. (2010). Motor coordination in autism spectrum disorders: a synthesis and meta-analysis. *Journal of Autism and Developmental Disorders*, 40, 1227–1240. <https://doi.org/10.1007/s10803-010-0981-3>.
- [4] American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association
- [5] White-Lewis, S., Russell, C., Johnson, R., Cheng, A. L., & McClain, N. (2017). Equine-assisted therapy intervention studies targeting physical symptoms in adults: A systematic review. *Applied nursing research: ANR*, 38, 9–21.
- [6] Associacao Brasileira De Equoterapia (2013). Brasilia: ANDE-Brasil; Consultado em 13 de Maio de 2013atraves de: <http://www.equoterapia.org.br/objetivos.php>.
- [7] Marques Oliveira, J. J., Copetti, F., Schmidt, C., & Alcantara Medeiros, M. (2014). Evidences of Therapeutic Horseback Riding in Autism Spectrum Disorder. *Braga 2014 Embracing Inclusive Approaches for Children and Youth with Special Education Needs Conference*, (October), 590–594.<https://doi.org/10.13140/2.1.2317.1841>.
- [8] Jenkins, S. R., & Reed, F. D. D. (2013). An experimental analysis of the effects of therapeutic horseback riding on the behavior of children with autism. *Research in Autism Spectrum Disorders*, 7(6), 721–740.
- [9] García-Gómez, A., Risco, M. L., Rubio, J. C., Guerrero, E., & García-Peña, I. M. (2014). Effects of a Program of Adapted Therapeutic Horse-riding in a Group of Autism Spectrum Disorder Children. *Electronic Journal of Research in Educational Psychology*.



Child Sexual Abuse; A Skeleton in the Closet?

Atifah Othman

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus
Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: atifahothman@uitm.edu.my

ABSTRACT

The purpose of this paper is to look at the complex legal definitions of child sexual abuse at international and national level. Some definitions at national level entail the cultural and current perspective of local society which may affect the operative management of the issue. The aim of his paper is to compare these definitions against international standard definition provided by the United Nations Convention on the Right of The Child (CRC). Qualitative method will be used in studying the matter.

Keywords: Child sexual abuse; definition; United Nations Convention on the Right of the Child

1. INTRODUCTION

Since ancient civilization, child abuse has been documented in literature, art and science works everywhere [Runyan, D. *et al*, 2002]. Nevertheless, child abuse was not recognised and neglected until 1946 [Yarina Ahmad, 2018]. A Harvard University research done by Kempe and Kempe in 1978 showed child sexual abuse went in unreported. They suggested that strong feelings of disgust or scepticism deter the society and professionals from acknowledging the issue of sexual abuse and underestimate its intensity and degree [Yarina Ahmad, 2018]. Today, civilization has recognised sexual abuse as a type of sexual violence against children. It is a violation of children's rights [Abu Bakar Munir, 2018].

This issue is prevalent. Global studies showed that 1 in 5 women and 1 in 13 men have been sexually abused during their childhood [National Society for the Prevention of Cruelty to Children, 2019]. Abuse can lead to other crimes especially when the victims are less powerful children. From economic perspectives, this crime of sexual child abuse led to lower productivity in future human resource and higher cost of health care particularly in psychiatric constituent.

Since the Covid-19 pandemic, there has been more reports about child sexual abuse, especially online child sexual abuse on the rise. Home Affairs commissioner for European Union (EU) had reported a higher demand for materials with child sexual abuse elements. In some EU states, the demand had risen to 30%.

Definition of A "Child"

Article 1 of the United Nations Convention on the Rights of the Child 1989 (CRC) defines a child to mean "every human being below the age of eighteen years". Exception to that age is when applicable law of the land says age of majority is earlier. While CRC defines a child as a person under eighteen years old or younger as per respective national legislation, International Labor Organization (ILO) and Palermo Protocol however took the barrier of national legislation

away thus leaving the definition of child as a person under eighteen regardless of legal territories This is pragmatic in situations involving human trafficking [Sara Shapouri, 2007].

In Malaysia, under section 2 of Child Act 2001 (Act 611) and Age of Majority Act 1971 (Act 21) a child is “a person under the age of eighteen year”.

In United Kingdom, Family Law Reform Act 1969 stipulated that the age of majority was reduced from 21 to 18 years old.

2. CHILD ABUSE

Different professional study defines “child abuse” differently. For example, Bromfield (2005), Trickett, and Flanzer (2006) discussed that medical terms focus the physical symptoms of a child rather than the abusive or neglectful behaviour of an offender, while legal and judicial explanations highlight those facets of parental behaviour and child symptomatology that provide the best evidence for a successful prosecution [Mohd Shahidan Shaari, Nor Hidayah Harun & Nor Ermawati Hussain, 2019].

Meaning of child abuse also differs depending on customs, beliefs and viewpoints of individuals and society [Yarina Ahmad, 2018] [Abu Bakar Munir, 2018]. Various cultures have varied different rules about as to appropriate child raising methods. Nevertheless, all cultures agree that sexual abuse is intolerable.

Child abuse is a category of child maltreatment. Child maltreatment can be divided into child abuse and neglect [WHO, 2020]. Effects of child maltreatment comprise of lifelong physical and mental health. The social and occupational consequences can ultimately have negative impacts on economic and social development of a country.

“Child Sexual Abuse”

Children can be sexually abused by both adults and other children who are ...by virtue of their age or stage of development...in a position of responsibility, trust, or power over the victim. [Yarina Ahmad, 2018].

Data collected in Malaysia showed that most offenders are no stranger to the children [Cheah & Yuen, 2016].

Conservative definition of child sexual abuse has expanded from physical child sexual abuse to sexual interaction with children in virtual world or non-virtual world [O'Brien, Rev. Raymond C., 2004].

Assessments of occurrence of sexual abuse significantly differ subject to the definition and how the information was gathered. A few global researches illustrate ratio of sexual abuse 1.5-3 times greater among girls contrasted to boys.

Adult sexual abuse and child sexual abuse are very different in nature and thus cannot be managed the same way. Characteristics of child sexual abuse comprise of:

- Perpetrator usually tries to manipulate the child’s trust. They seldom use physical force or violence.
- Normally the doer is a known and trusted caregiver.

- Child sexual abuse usually happens over some time which may stretch from weeks to years.
- The episodes often repeated occurrences that becomes gradually invasive in time. Offenders may groom the child from time to time.
- One third of child sexual abuse cases is incest.

Child sexual abuse is defined as “sexual exploitation of children through actions such as incest, molestation and rape [Yarina Ahmad, 2018].

World Health Organization (WHO) stated a broader definition that child abuse is a form of abuse and negligence that occur to children under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, negligence and commercial or other exploitation, which result in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power. Exposure to intimate partner violence is also sometimes included as a form of child abuse [Mohd Shahidan Shaari, Nor Hidayah Harun & Nor Ermawati Hussain, 2019] [Runyan, D. *et al*, 2002].

From this definition of child abuse, five subtypes are differentiated: physical abuse; sexual abuse; neglect and negligent treatment; emotional abuse; and exploitation [UNICEF, 2013].

Child Sexual Exploitation

Child sexual exploitation is a category under sexual abuse. In this category, children or young people are given things like gifts, money, or care in return to performing sexual activities. They are deceived into thinking that they are in caring, consensual relationship. They may be given drugs or alcohol in parties or groomed and exploited online. Some were also trafficked. These crimes may also be executed in gangs [WHO, 2016].

Contact and Non-Contact Sexual Abuse

Classification of sexual abuse can also be categorized as contact and non-contact abuse.

Contact sexual abuse contains “sexualised kissing, fondling, masturbation and digital or object penetration of the vagina or anus and oral-genital, genital-genital and anal-genital contact”. Non-contact sexual abuse includes involves “exhibition, inappropriate observation of an individual while he or she is dressing, undressing, or bathing, and producing or viewing pornography or forced prostitution.

3. SOME APPROACHES TO DEFINITION OF CHILD SEXUAL ABUSE

Human Rights or Legal Approach

Sexual abuse is recognized as a type of sexual violence against children. It is a violation of the child’s right [UNICEF, 2018].

WHO defines child sexual abuse as “*the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, for which the child is not developmentally prepared and cannot give consent, or that violate the laws or social taboos of society. This may include the inducement or coercion of a child to engage in any sexual activity; the use of a child in prostitution any sexual activity; or other sexual practices; and the exploitative use of children in pornographic performances and materials*” [UNICEF, 2013].

This definition is devoid of mens rea or guilty mind on the part of the child. It stresses on the innocent and inexperience state of mind of the victim too.

World Health Organization (WHO) includes child sexual abuse as a form of child abuse (Ministry of Women, Family and Community Development and UNICEF Malaysia, 2013) (Yarina Ahmad, 2018) and recognize it as child maltreatment (WHO, 2016). Child sexual exploitation (UK National Society for the Prevention of Cruelty to Children, 2019) connotes actions such as incest, molestation, and rape (Yarina Ahmad, 2018).

American Definition of Child Sexual Abuse

In Pennsylvania, definition of child sexual abuse in its Child Protective Services Law excluded consensual activities between two children, ages 14 to 18 years old except in situations where criminal acts such as assault, incest or sexual exploitation is involved.

American congress defined child sexual abuse in Child Abuse Prevention and Treatment Act of 1974 (CAPTA) as (A) the employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or (B) the rape, and in cases of caretaker or inter-familial relationships, the statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children.

English Law Definition

Brown, J. and Saied-Tessier, A. (2015) quoted The HM Government guidance for professionals, working together to safeguard children (Her Majesty's Government, 2010), defining child sexual abuse as: Forcing or enticing a child or young person to take part in sexual activities, not necessarily involving a high level of violence, whether or not the child is aware of what is happening. The actions may involve physical contact, including assault by penetration (for example, rape or oral sex) or non-penetrative acts, such as masturbation, kissing, rubbing, and touching outside of clothing. They may also include noncontact activities, such as involving children in looking at, or in the production of, sexual images, watching sexual activities, encouraging children to behave in sexually inappropriate ways, or grooming a child in preparation for abuse (including via the internet).

Public Health Approach

WHO and countries around the world are beginning to identify child sexual abuse as a public health issue [Cheah & Yuen, 2016] [Drummond & Southgate, 2018] [Filzah & Taib, 2015]. Tackling the issue as such will give certain advantage as the approaches towards the issue will be more holistic.

4. MALAYSIAN DEFINITION OF “CHILD ABUSE” AND “CHILD SEXUAL ABUSE”.

Child Abuse

There seems to be a lack of definition of what constitute a “child abuse” in Malaysia. As the saying “spare the rod and spoil the child” or “sayangkan anak, tangan-tangankan” still takes

centre stage in educating children, some quarters of the society still believe that corporal punishment is not “child abuse”.

Child Act 2001(Act 611) does not have an exact definition of “child abuse”. Nevertheless, Co-ordinating Council for the Protection of Children created by the Act 611 is given the task to “develop programmes to educate the public in the prevention of child abuse and neglect”. Based on the Child Act 2001, Cheah defined “child abuse” as when the child has been or is at substantial risk of being physically or emotionally injured or sexually abused or neglected in or emotionally injured or sexually abused or neglected in terms of adequate care, food, shelter, clothing, medical terms of adequate care, food, shelter, clothing, medical attention, supervision and safety, or abandonment or others attention, supervision and safety, or abandonment or others such as being on the street or used for begging by the parents such as being on the street or used for begging by the parents or persons in charge of the child at any one time [Cheah, Choo, 2016].

Child Sexual Abuse

All in all, Malaysian society does agree as to what constitute a child sexual abuse. In recent years, more adults are beginning to talk about their experience pertaining child sexual abuse. Perhaps, this is due to better public education and less stigmas attached to it. More assistance and protections are made available to victims of child sexual abuse, openly yet in discreet as to their identities.

“Child Sexual abuse” means rape, sodomy, molestation, or exhibitionism occurring to a child less than 18 years of age.

Child sexual abuse may fall under the term of “physical sexual assault on a child” under section 14 of Sexual Offences Against Children Act 2017 (Act 792).

Section 14. Any person who, for sexual purposes—

- (a) touches any part of the body of a child;
- (b) makes a child touch any part of the body of such person or of any other person;
- (c) makes a child touch any part of the child’s own body; or
- (d) does any other acts that involve physical contact with a child without sexual intercourse, commits an offence and shall, on conviction, be punished with imprisonment for a term not exceeding twenty years and shall also be liable to whipping.

Explanation 1 to the section elaborate that the offence be executed with “any part of the body or with an object and may be done through anything including anything worn by the person touching or by the child touched”.

Explanation 2 of the section gives the special court for sexual crimes against children discretionary power to determine as to what constitutes sexual contact in the respective cases. Section 15 of the Sexual Offences against Children Act stipulated that Non-physical sexual assault on a child are defined as below.

Section 15. Any person who—

(a) for sexual purposes—

- (i) utters any word or makes any sound, or makes any gesture or exhibits any object or his body or any part of his body with the intention that such word or sound shall be heard, or such gesture or object or body or part of his body shall be seen by a child;
- (ii) makes a child exhibit the child's body or any part of the child's body so as it is seen by such person or any other person; or
- (iii) repeatedly or constantly follows or watches or contacts a child by any means;

Section 17(2)(c) of the Child Act (2001) states that a child is sexually abused:

“if he has taken part, whether as a participant or an observer, in any activity which is sexual in nature for the purposes of—

- (i) any pornographic, obscene or indecent material, photograph, recording, film, videotape or performance; or
- (ii) sexual exploitation by any person for that person's or another person's sexual gratification.”

Statutory rape is an offence against a minor under section 375(g) of the Malaysian Penal Code (Act 574). Any sexual act with or without consent with a child is deemed to be statutory rape. It is punishable with imprisonment for a term of not less than ten years and not more than thirty years and shall also be liable to whipping (section 376 (2) of the Penal Code).

Incest (under section 376A of the Penal Code) is an offence punishable with imprisonment for a term of not less than ten years and not more than thirty years and shall also be liable to whipping (section 376B of the Penal Code). Explanation to section 376B of the Penal Code states that “a person who is under sixteen years of age, if female, or under thirteen years of age, if male, shall be deemed to be incapable of giving consent”.

Inciting a child to an act of gross indecency is an offence under section 377E of the Penal Code. The punishment is meted in the same section as such:

“Any person who incites a child under the age of fourteen years to any act of gross indecency with him or another person shall be punished with imprisonment for a term of not less than three years and not more than fifteen years, and shall also be liable to whipping.”

5. CONCLUSION

Definition of child abuse is extensive and ranging from multiple aspects. It also may vary according to legislations and cultures. Regardless of the difference of opinion in that, at least, Malaysian society has agreed on what tantamount to a “child sexual abuse”. The legal definition is however can be found in a few Acts. This may further complicate the enforcement of the laws regarding child sexual abuse.

Furthermore, to effectively prevent and counter the issue, our people need a reformation of culture, mind set and political will. We need all-inclusive approaches to prevent and combat this issue. Conventions at international level may serve as guidelines for national legislations

to follow suit. Nonetheless, having laws alone may not be sufficient to effectively counter and deal with this problem. Approaches must be complete and wide-ranging. Not only rights of children should be acknowledged, they need to be empowered as well. Identifying this issue as a public health issue may help accelerate the urgency of the matter in the eyes of the politicians and academicians. However, with recent Covid-19 pandemic and recession suddenly re-visiting the world, rights of children may be side-tracked again.

ACKNOWLEDGEMENT

The author wishes to acknowledge Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil.

REFERENCES

- [1] Desmond Runyan, Corrine Wattam, Robin Ikeda, Fatma Hassan, Laurie Ramiro, Krug EG et al., eds. (2002), Chapter 3. World report on violence and health. Geneva, World Health Organization
- [2] Yarina Ahmad, 2018, Empirical Evidence on Child Abuse in the Malaysian Context, UiTM Press, Malaysia.
- [3] Abu Bakar Munir, Siti Hajar Mohd Yasin, Siti Sarah Abu Bakar and Firdaus Muhammad-Sukki, THE SEXUAL OFFENCES AGAINST CHILDREN ACT 2017: FLAWS IN THE LAW, [2018] 5 MLJ cxx, Malayan Law Journal Articles
- [4] National Society for the Prevention of Cruelty to Children, 2019, Child sexual exploitation, London, <https://www.nspcc.org.uk/preventing-abuse/child-abuse-and-neglect/child-sexual-exploitation> accessed on 25/1/2019.
- [5] D. Haslam, B. Mathews, (June 6, 2020) Be careful with photos , talk about sex : how to protect your kids from online sexual abuse, The Conversation, <https://theconversation.com/be-careful-with-photos-talk-about-sex-how-to-protect-your-kids-from-online-sexual-abuse-139971> accessed 14 June 2020
- [6] Zoi Didili, (June 9, 2020), NEWEUROPE, <https://www.neweurope.eu/article/eu-prepares-strategy-to-combat-online-child-sex-abuse/>
- [7] Convention on the Rights of the Child, Adopted and opened for signature, ratification, and accession by General Assembly resolution 44/25 of 20 November 1989. <https://www.unicef.org/sites/default/files/2019-04/UN-Convention-Rights-Child-text.pdf>. entry into force 2 September 1990, in accordance with article 49
- [8] Sara Shapouri, (2007), Ending Child Sexual Abuse and Exploitation: A Guide for Child Protection in Iran, 7 Whittier J. Child & Fam. Advoc. 63
- [9] Child Act 2001 (Act 611)
<http://www.agc.gov.my/agcportal/uploads/files/Publications/LOM/EN/Act%20611.pdf>
- [10] Age of Majority Act 1971 (Act 21),
<http://www.agc.gov.my/agcportal/uploads/files/Publications/LOM/EN/Act%2021.pdf>
- [11] Family Law Reform Act 1969 <http://www.legislation.gov.uk/ukpga/1969/46/contents>
- [12] Mohd Shahidan Shaari, Nor Hidayah Harun & Nor Ermawati Hussain, 2019, Female Labour Force and Child Abuse in Malaysia Using ARDL Approach, Jurnal Ekonomi Malaysia 53(1) 2019 27–33 <http://dx.doi.org/10.17576/JEM-2019-5301-3>
- [13] Desmond Runyan, Corrine Wattam, Robin Ikeda, Fatma Hassan, Laurie Ramiro, Krug EG et al., eds. (2002), Chapter 3. World report on violence and health. Geneva, World Health Organization.



- [14] National Society for the Prevention of Cruelty to Children, 2019, Child sexual exploitation, London, <https://www.nspcc.org.uk/preventing-abuse/child-abuse-and-neglect/child-sexual-exploitation> accessed on 25/1/2019.
- [15] World Health Organization, (2020), <https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>
- [16] Yarina Ahmad, 2018, Empirical Evidence on Child Abuse in the Malaysian Context, Malaysia, UiTM Press.
- [17] Irene Guat-Sim Cheah & Choo Wan Yuen, A Review of Research on Child Abuse in Malaysia, Med J Malaysia Vol 71 Supplement 1 June 2016.
- [18] O'Brien, Rev. Raymond C., (2004) Clergy, Sex and the American Way, 31 Pepp. L. Rev. 363.
- [19] Desmond Runyan, Corrine Wattam, Robin Ikeda, Fatma Hassan, Laurie Ramiro, Krug EG et al., eds. (2002), Chapter 3. World report on violence and health. Geneva, World Health Organization.
- [20] Guidelines for Medico-Legal Care for Victims of Sexual Violence 7.2, https://www.who.int/violence_injury_prevention/resources/publications/en/guidelines_chap7.pdf
- [21] Yarina Ahmad, 2018, Empirical Evidence on Child Abuse in the Malaysian Context, Malaysia, UiTM Press.
- [22] Mohd Shahidan Shaari, Nor Hidayah Harun & Nor Ermawati Hussain, 2019, Female Labour Force and Child Abuse in Malaysia Using ARDL Approach, Jurnal Ekonomi Malaysia 53(1) 2019 27 - 33 <http://dx.doi.org/10.17576/JEM-2019-5301-3>
- [23] Desmond Runyan, Corrine Wattam, Robin Ikeda, Fatma Hassan, Laurie Ramiro, Krug EG et al., eds. (2002), Chapter 3. World report on violence and health. Geneva, World Health Organization.
- [24] Ministry of Women, Family and Community Development and UNICEF Malaysia, (2013) Child Protection System in Malaysia an Analysis of the System for Prevention and Response to Abuse, Violence and Exploitation against Children, UNICEF at page 9.
- [25] WHO, (2016), Child Maltreatment Key Facts, <https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>.
- [26] UNICEF, (October, 2018), https://www.unicef.org/protection/57929_58006.html
- [27] Ministry of Women, Family and Community Development and UNICEF Malaysia, (2013) Child Protection System in Malaysia an Analysis of the System for Prevention and Response to Abuse, Violence and Exploitation against Children, UNICEF.
- [28] PA family support alliance, <https://www.pa-fsa.org/Mandated-Reporters/Recognizing-Child-Abuse-Neglect/Abuse-Neglect-Definition> accessed 25/01/2019 (<https://www.childwelfare.gov>)
- [29] Alison Adams, (2009), Monologue & Commentary: Commentary: Seen but Not Heard: Child Sexual Abuse, Incest, and the Law in the United States, JOURNAL OF LAW & FAMILY STUDIES 11 J. L. Fam. Stud. 543
- [30] Brown, J. and Saied-Tessier, A. (2015) Preventing child sexual abuse: towards a national strategy for England. London: NSPCC
- [31] Section 3(2)(e) of Child Act 2001(Act 611)
- [32] Irene Guat-Sim Cheah, Choo Wan Yuen (June 1st, 2016) A Review of Research on Child Abuse in Malaysia, Med J Malaysia Vol 71 Supplement
- [33] HSS AMAR SINGH, WONG WOAN YIING, AND HJH NOOR KHATIJAH NURANI, 1996, PREVALENCE OF CHILDHOOD SEXUAL ABUSE AMONG MALAYSIAN PARAMEDICAL STUDENTS, Child Abuse & Neglect, Vol. 20, No. 6, pp. 487-492, 1996, <https://pdf.sciencedirectassets.com/271783/1-s2.0-S0145213400X00014/1-s2.0-145213496000300/main.pdf?>



- [34] Sexual Offences Against Children Act 2017 (Act 792)
http://www.federalgazette.agc.gov.my/outputaktap/aktaBI_20170707_WJW008739BI.pdf
- [35] Section 17(2)(c) of the Child Act 2001 (Act 611)
- [36] Malaysian Penal Code (Act 574) <https://www-cljlaw-com.ezaccess.library.uitm.edu.my/Members/DisplayAct.aspx?ActSectionId=4027718252&SearchId=2maralib1>



The Child Bride; To be or Not to be

Nicholas Anak Unang, Nur Dini Asrin, Awang Mohamed Najmi Asri, Nurin Amani Suhaimi, Nur Asma Awatif Azizuddin, Muhammad Aiman Firdaus Azman, *Atifah Othman

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: atifahothman@uitm.edu.my

ABSTRACT

The paper aims to investigate the relationship between human rights and child marriages, the effects child marriages have on children and the legal frameworks available to deter or control them. Standard used are based on United Nations Conventions on the Rights of the Child and United Nations Sustainable Development Goals (SDG). Qualitative approach will be used in studying solutions exercised by some countries around the world. This paper outlines the approaches taken by the countries in dealing with this issue.

Keywords: Child marriage; legal frameworks; human rights standards; approaches

1. INTRODUCTION

Child marriages were common throughout history. Today, child marriage is still widespread, particularly in developing countries, such as parts of Africa, South Asia, Southeast Asia, West Asia, Latin America, and Oceania. However, even in developed countries such as the United States of America, 17 of her states have no minimum age requirement. The incidence of child marriage has been falling in most parts of the world. 2018 data from UNICEF showed that about 21 percent of young women worldwide (aged 20 to 24) were married as children; this is a 25 percent decrease from 10 years previously. The countries with the highest observed rates of child marriages below the age of 18 were Niger, Chad, Mali, Bangladesh, Guinea, and the Central African Republic, with a rate above 60%. Niger, Chad, Bangladesh, Mali, and Ethiopia were the countries with child marriage rates greater than 20% below the age of 15, according to 2003–2009 surveys. Every year globally, 12 million girls are married under the age of 18.

2. DISCUSSION

Causes of Child Marriage in Asia

Southeast Asia has held the crown with highest rates of Child Marriage in the world, with more than half of the girls were married before the age of majority, which is 18 years-old according to Age of Majority Act 1971. The question to be is what causes these events to happen?

Poverty

Child Marriage usually occurs in the lower income society. In developing cities, countries, families that lives under the roof of hardships struggle even just to live, not to mention bearing children. A family that lives in poverty find it much less burdensome when letting go of their daughter (or one of their daughters) to marry a man, to them when the daughter leaves the



family, she will no longer require resources from the family (Children, 2012). To these family, children are a load upon them, one of the best and merciful solution is early marriage (Scolaro, et al., 2015). Indeed, it is a miserable to let go of your own child, but the ones who struggle to bear the child, believes its better off for both child and parents.

Tradition and Religion

Marriage often determines a woman's status in societies, also to fulfill social expectations. Some child marriages are arranged to secure a person's position in tribes or clans. For instance, one out of every nine underage girls are married every single day with a total of 375 people according to United Nations Children's Fund (UNICEF) in Indonesia (Muhammad & Dikanaya, 2018). They ranked third in highest birth rate among teenagers aged 15-19 with a total of 48 (Maholtra, 2010).

Some of child marriages have sentimental values in their religion. Although most people in Pakistan and Malaysia embrace Islam as their religion, they do not share same perspective; as Malaysia considers child marriage is wicked, Pakistanis believe child marriage opposed some values. Pakistan law is according to Islamic Law while Malaysia Law has Islamic Law and Civil Law that works in accordance. People in Pakistan claims that Quran does not stipulate minimum age of marriage in it therefore they legalized child marriage. Also, pre-Islamic Arab customs that used to allows child marriage plays significant roles in introducing Islam to child through child marriage (Butt, 2015).

Insecurity in Face Conflict

Causes of child marriage are in a very wide complex net. Another factor of child marriage is due to the insecurity felt by the child or parents. According to the United Nations Population Fund (UNFPA), child marriage is seen as a preventive measure to curb premarital sex or rape. As mentioned by Walker, cited by (Scolaro, et al., 2015) the practice of child marriage will have a positive correlation with changes in circumstances like conflicts, natural disasters and other emergencies that will lead to an increase in the practice. Moreover, parents would not be by their child's side every time, nor forever. The duty of protecting the girl from any sort of sexual disturbance and violence will be shifted to the husband of the child upon early marriage, in the same time lessening responsibility of the girl's parents. (Scolaro, et al., 2015)

Consequences of Child Marriage

In some perspectives especially in the region of South East Asia, child marriage is being seen as a method to bring a fortune in terms of financial to the family as it seems somehow be able to bring in additional source of income to the family. Mostly, this is happened due to poverty that gloomed the head of the family which may lead to other psychological issues. Under the pressure of poverty, the head of the family had to offer and married off their daughters early in order to lessen the burden; so that he can support the remaining of their family members to stay alive. It is to be said that the financial needed to support a daughter is very pricey and child marriage is the only way to solve the problem (Santosh, 2016). However, even though in their perspective this is a brilliant and the fastest way to live without the pressure of poverty, 'selling' their daughter is not an appropriate and a supposedly action to do. As head of family, they must think more wisely especially about their daughter's future rather than treat them as a way to get financial assistance.



HIV and AIDS

The future of the girls is very limited once they got married at the young age. Being married at such a young age might be able to ensure their future in a certain way but in most of the cases, they are actually suffering because by being someone else's wife as they have to play that role sometimes against their own will and without physical and mental preparation. More than 50% of women are forced to get married before they reach 18 years old (UNICEF, 2017). In addition, majority of this percentage are suffered with diseases such as HIV and AIDS. As in 2018, a new 100 cases of HIV among children is recorded in Thailand, one of the countries that has the highest rates of HIV in South East Asia region (Avert, 2020). The young married girls are more risked in being affected with HIV and AIDS as their antibody is still in a building up process which make them very vulnerable.

There are several probabilities regarding the transmission of HIV virus to the young wives. For instance, the transmission could happen due to the polygamy behaviour of the husbands. This situation often happened when the guy married a young wife especially when the wife is a minor. The husband could probably have had prior unprotected intercourses before that marriage, then had unprotected intercourse with their young wife after marriage. In addition, it is important for the girls' parents to know the husbands' health record before they married off their daughter. Things will get worse if the young wives had intercourse with the husband who is infected with HIV.

Infant and Maternal Mortality

Another one of the consequences of child marriage is, there is a higher risk of mortality of both mother and infant. These moms are at higher risk of complications during pregnancy and childbirth, because, they become pregnant before their bodies are ready, which endangers the life of both mother and child. Researches show the hazard of maternal mortality is highest for adolescent girls under 15 years old, and difficulties in pregnancy and childbirth are a dominant cause of death among youthful girls in developing countries, except for vulnerable orphaned children (CAMFED, 2017). Girls who are 15 to 19 years old are twice likely to die in childbirth than women in their 20s. Girls under the age of 15 years old are five to seven times more likely to die during childbirth. Meanwhile, for the girls under 18 years old that had to give birth may face a higher risk of pregnancy-related injuries like fistula ("World Day of Prayer and Action for Children", 2012). These are due to physical immaturity where the pelvis and birth canal are not entirely matured. Those girls who give birth before the age of 15 have an 88% risk of developing fistula due to prolonged labour that make many girls become victims of morbidities like obstetric Fistula. Fistula patients suffer from incontinence or faecal discharge emitting foul odour making the girls social outcasts, usually young girls who come from a socially disadvantaged group with little access to Emergency Obstetric Care (Ahmed, 2015). A child who is born to an adolescent mother is more likely to face death before the age of one, twice compared to the child of a woman in her 20s ("World Day of Prayer and Action for Children", 2012).

Domestic Violence

Besides, child marriage can also expose the teenagers to domestic and sexual violence. Violence may include physical, sexual or psychological abuse. Girls who marry before 18 are more likely to involve in domestic violence than their peers who marry later. For instance, in Peru, where more than half of women state that they have experienced physical or sexual violence, child



marriage has been found to increase a woman's opportunities of being abused (ICRW, n.d.). Husbands of the girls usually older than them and make them have only little control over their lives and well-being. Because of this unequal relationship, it raises the risk of that the child bride will be exposed to verbal or physical abuse by her husband, or by her husband's family ("World Day of Prayer and Action for Children", 2012). Other than that, girls with low bargaining power in the household are more likely to experience violence by a confidant partner. Women with low levels of education and teenagers ages 15 to 19 are at higher risk of violence than better educated or older women (ICRW, n.d.).

Lead to Deprivation

Child marriage leads to depravation of the child's future. Early marriages and child marriages had stolen the girls' future as they most likely will lost their opportunity for education (Ahmed, 2015). Women, who are employed, often restore 90% of their earnings back to their families, avoid poverty for themselves, their children, family, and relatives. But when a girl is married as a child, this can be mean the end of her education and her capability to become financially independent (CAMFED, 2017). Child brides are less likely to involve in politics and community affairs, leaving them detached from their society ("World Day of Prayer and Action for Children", 2012). As the inter-generational cycle of poverty continues, youth unemployment and economic vulnerability can lead to migration, conflict, and violence.

Steps to Control and Standardize

Collectively, putting a complete stop to child marriage might be impossible as it has been a practice especially amongst Asians since ages ago. In present days, people should focus on how to minimize or at least, standardize child marriage to help protect the rights of children involved. As such, a few legislations in United Nations established standards to be followed regarding marriage of a child.

One of the ways to control child marriage is by having consistency in the safeguards of rights to marry. Firstly, one of the most important elements of the safeguards is to specify a minimum age for marriage. Article 1 of the UN Convention on the Rights of the Child (CRC) defines a child as: "every human being below the age of 18 years unless, under the law applicable to the child, majority is attained earlier." This recognizes the prevalence of different social and cultural norms in different parts of the world, although it cannot be used to justify the establishment of ages that are so low that they are incompatible with the provisions and objectives of CRC (Turner, 2013). The UN Committee on the Rights of the Child (CRC Committee), which monitors States' compliance with the CRC, recommends the minimum age for marriage for both boys and girls as 18 years, with or without the consent of the parents (Turner, 2013). It is important that government should not be using parental consent as a permit marriage to any child lower than the national age limit. For instance, establishing a clear minimum age for marriage at 18 in accordance with international standards which apply to all existing legal frameworks is the first step towards ending child marriage in Malaysia (Noor, 2018). However, in Bangladesh, one of the states with high numbers of child marriage, the law on legal minimum age for marriage is ignored most of the time due to the inadequacy of birth registration there (Ferdousi, 2014). Following the ongoing concerns about the low age limits set by many countries in domestic law, the CRC Committee made the recommendation with the need to protect children from the wide-ranging negative implications of child marriage for health, education and greater social inclusion (Turner, 2013).



Next, states should ratify all relevant international standards and provisions as it is important to stay updated with laws and legislations around the world especially international laws to help standardized the issues of child marriage. Therefore, states will have to ensure that all international standards relating to slavery, slavery-like practices, and the right to marry are fully implemented in national law (Turner, 2013). The State must ensure that relevant authorities, including religious or tribal authorities, comply with such legislation by asserting the primacy of national legislation where such laws may conflict with other forms of law or practices operating within the State's jurisdiction, including religious, customary or local laws. However, the parallel systems may contradict or undermine national legislation, overriding statutory law in the eyes of many people in practice (Turner, 2013). Although parallel systems should never be challenged to weaken the primacy of international law (CEDAW, 1994) the practice of competing parallel legal systems can supply more legislative protections for children who is at risk in marriage which became totally ineffective by exercising parallel system (Turner, 2013). More broadly, strengthening and enforcement of child marriage laws must be part of a national action plan, which should be a wide-ranging and systematic effort to move towards gender equality in both practical and legal terms, removing obstacles to women's empowerment and promote their rights (UNFPA, 2012). For example, in Malaysia, the National Fatwah Council of Malaysia made clear that the marriage between Prophet Muhammad and Aisha could not and should not be used as religious justification for underage marriage (Noor, 2018). The council argued that the practice of child marriage should not be encouraged or allowed without weighing the benefits and the consequences for the children involved as it is not a "healthy practice" (Noor, 2018). This shows that ratification of relevant international legislations could minimize child marriage in states.

Finally, a crucial way of minimizing child marriage itself is to raise awareness of the risk for adolescents involved with the situation. Most of the time, children who were forced into an early marriage will be deprived of their rights as a human being mainly the rights to education. For example, women ages 20 to 29 in Ethiopia with secondary or higher education, marry at an average age 3.2 years above than non-educational women of the same age (UNFPA, 2012). The life after marriage can resulting in loss of educational opportunities with the commitments of childcare, the pressures of family life and the loss of their youth and innocence. Therefore, programmes or movements need to be developed to raise awareness to educate the child, family, and the community against the negative consequences of child marriage. Logically, educated parents would be more unlikely to force their child into child marriage knowing all the damage attached to child marriage and would perceive the practices as unfavourable (Noor, 2018). For instance, Pakistan has the sixth highest number of absolute child brides in the world which is 1,909,000. In the effort to create awareness, a project focuses to improve maternal health of girls and women which at the same time, runs workshops to sensitize media personnel about women's rights, child marriage, and fistula prevention and treatment (UNFPA, 2012). Next, UNFPA supported the formulation of a youth policy that addresses child marriage and the direct links between child marriage, early pregnancy, and fistula to put a stop to the harmful practices (UNFPA, 2012). In conclusion, the effort of educating more parents, families, and communities about the impact of child marriage can have a positive effect to the alarming increase of child marriage cases.

3. CONCLUSION

Child marriage is one of the most serious and important issues relating to child protection. It is intriguing that it is still happening in 21st century. Not to mention the countries that recorded the most numbers of child marriages are in South Asia and Africa. There are also a lot of cases

of child marriages within South East Asia Region such Thailand. It is now the time for us as a part of the society to take actions to stop, curb or at least regulate child marriages. In the meanwhile, the government can also solve this matter by implementing stronger laws and policies in the country. Spreading campaigns to stop the child marriage throughout the social media is also one of the effective methods to control this issue.

ACKNOWLEDGEMENT

The authors wish to acknowledge Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor Kampus Dengkil and Program Contemporary Global and Legal Issues Exhibition Programme 2020 (CoGLIEx 2020).

REFERENCES

- [1] UNICEF. (2017). *Child Marriage*. Retrieved from <https://www.unicef.org/rosa/what-we-do/child-protection/child-marriage>
- [2] Santosh, K., M. (2016). Causes and Consequences of Child Marriage: A Perspective. *International Journal of Scientific & Engineering Research*, 7(7), 608–702. <http://www.ijser.org>
- [3] Avert. (2020). *HIV and AIDS in Thailand*. Retrieved from <https://www.avert.org/professionals/hiv-around-world/asia-pacific/thailand>
- [4] Turner, C. (2013). *Out of the Shadows: Child Marriage and Slavery*. London: Anti-Slavery International.
- [5] CEDAW Committee, General Recommendation No.21 on Article 16 concerning equality in marriage and family relations (1994).
- [6] UNFPA. (2012). *Marrying Too Young: End Child Marriage*. New York: UNFPA.
- [7] Noor, A., M. (2018). *Child Marriage in Malaysia*.
- [8] Ferdousi, N. (2014). Child Marriage in Bangladesh: Socio-legal analysis. *International Journal of Sociology and Anthropology*, 6(1), 1–7.
- [9] Department of Islamic Development, Malaysia. (2016). 'Kompilasi Pandangan Hukum, Muzakarah Jawatankuasa Fatwa, Majlis Kebangsaan Bagi Hal Ehwal Agama Islam Malaysia', Department of Islamic Development, Malaysia (JAKIM). Retrieved from www.islam.gov.my/images/ePenerbitan/KOMPILASI_MUZAKARAH_MKI_2016.pdf
- [10] Muhammad Zulfikar Rakhmat., & Dikanaya Tarahita. (2018, April 18). Child Marriage: Southeast Asia Misery. *Asia Sentinel*. Retrieved from <https://www.asiasentinel.com/p/child-marriage-southeast-asia-misery>
- [11] Butt, S. N. (2015). Causes and Consequences of Child Marriage in South Asia: Pakistan's Perspective. *South Asian Studies*, 161–175.
- [12] Children, W. D. (2012). A Note on Child Marriage. 1–16. Retrieved April 10, 2020, from www.dayofprayerandaction.org
- [13] Maholtra, A. (2010). The Causes, Consequences and Solutions to Forced Child Marriage in the Developing World. Washington: International Center for Research on Women.
- [14] Scolaro, E., Blagojevic, A., Filion, B., ChandraMouli, V., Say, L., Svanemyr, J., & Temmerman, M. (2015). Child Marriage Legislation in the Asia-Pacific Region. *The Review of Faith & International Affairs*, 13(3), 23–31. doi:10.1080/15570274.2015.1075759
- [15] CAMFED. (2017). 5 reasons why child marriage affects us all. Retrieved from <https://camfed.org/latest-news/5-reasons-why-child-marriage-affects-us-all/>
- [16] Ahmed, T. (2015). Child Marriage: A Discussion Paper. *Bangladesh Journal of Bioethics*, 6(2), 8–14.



- [17] ICRW (n.d.). Child Marriage and Domestic Violence Retrieved from <https://www.icrw.org/files/images/Child-Marriage-Fact-Sheet-Domestic-Violence.pdf>
- [18] World Day of Prayer and Action for Children. (2012, July). Retrieved from https://www.unicef.org/policyanalysis/files/Note_on_Child_Marriage.pdf



It's A Sign! Rethinking the User Experience Design Behind The “Golden Triangle” of Kuala Lumpur

¹Heng Mun, Yeow, ^{*2}Pouline Chai Lin, Koh, ³Sook Khuan, Wong

¹UOW Malaysia KDU University College, Selangor, Malaysia

²The Design School, Faculty of Innovation and Technology, Taylor's University, Selangor, Malaysia

³School of Social Sciences, UOW Malaysia KDU College, Selangor, Malaysia

*E-mail: pouline.koh@taylors.edu.my

ABSTRACT

Directional signages is regarded as a critical backbone to reducing perennially risk and help enlighten one's travelling performance. However, with Golden Triangle in Kuala Lumpur ranked as the tenth most preferred and visited destinations in the world, the safety and unpleasant experiences of wayfinding among the tourists continued to become a massive concern. Not only the lack of attention to the design of directional signages had resulted in the increase of anxiety and fear among tourists, the lack of clarity in the directional signages design is a daunting task that limit their desire to navigate from one destination to another, affecting the reputations and willingness to revisit the country. This study aims to examine the design of directional signages in the vicinity of Golden Triangle in Kuala Lumpur, Malaysia. In particular, three areas are further investigated including: (i) wayfinding and navigation ability; (ii) knowledge and attitude during wayfinding; and (iii) preference for design elements in directional signage. Surveys were conducted among 200 tourists at the vicinity of Golden Triangle in Kuala Lumpur. Results show that more than half of the respondents struggle to understand the directional signages design, while 62.5 percent of them are frustrated with the time spent on achieving wayfinding. This study further reveals that 68 percent of respondents prefer the existing directional signages to be redesigned with Bold San Serif typefaces (65 percent) and cool colour (44 percent) is more preferred than neutral colours (18 percent). Of all the directional signages design, Hybrid design is highly preferred with a combination use of abstract icons (64.5 percent) and arrow with shaft symbol (90 percent). The results also highlighted that the preferences for an improved directional signage design are associated with noticeability, readability and visibility.

Keywords: User Experience Design, Directional Signage, Design for Tourism Malaysia, Design for People.

1. INTRODUCTION

The growth of low-cost transportation over the years has made travelling become accessible and an essential activity for many [1]. It has driven the tourism industry to become one of the significant contributors to the world economy [2]. Predominantly in Malaysia, it is one of the countries that has gained massive economic growth through the tourism industry. According to Tourism Malaysia, Malaysia gained approximately RM 65 billion in the tourism sector in 2013, and by 2020, Malaysia would achieve RM 168 billion in tourism arrival [3,4].

The primary contributor to such massive amount of tourism arrival is the city center of the capital of Malaysia namely Kuala Lumpur, where unique architecture and attractions are mainly

situated [5]. With many tourists from around the world flown into Malaysia to explore Kuala Lumpur annually, it had resulted in a higher number of tourists than its city population, which coined Kuala Lumpur the top 10 most visited cities around the world [6,7]. However, it had also contributed to a massive concern of safety and security among tourists especially in the vicinity of Golden Triangle, one of the most iconic landmarks in the capital of Kuala Lumpur [8].

Despite various plans such as ‘The Kuala Lumpur City Plan 2020’ and ‘Tourism Development Strategy’ were implemented by the government aim to ensure the safety of tourists [9,10], previous studied revealed that most of the visitors feel unsafe navigating from place to place in Kuala Lumpur. Poor linkages between places is one of the main hurdles where tourists often having difficulties in wayfinding to the attractions [5]. As a result, tourists are obligated to limit their travel destinations; expenditure at tourist attractions are incidentally affected [11,12].

More often than not, signages are the prime source tourists relied on in wayfinding [13]. Signage is an environment communication tool that mainly conveys information through visual messages. It is regarded as critical urban design, an object with a structural backbone and consists of reference point to direct people and solving wayfinding issues [14,15]. Among the types of signages, directional signage brings the most significant effect in assisting wayfinding as it is able to remind tourists of their current locations as well as pointing out the way to the next potential destinations [16,17]. Nonetheless, O’Neil stressed that good user experience design is key to good directional signage where it can help increase the accuracy level in wayfinding and assist travelers to make lesser wrong turns [18].

This paper aims to examine the design of directional signages in the vicinity of Golden Triangle in Kuala Lumpur, Malaysia. In particular, three areas are further investigated including: (i) wayfinding and navigation ability; (ii) knowledge and attitude during wayfinding; and (iii) preference for design elements in directional signage. Objectively, this study intends to bring forward the insights of user experience design which are crucial to wayfinding performance that would affect the willingness to revisit a country.

2. LITERATURE REVIEW

Wayfinding – a term that is developed to replace the meaning of spatial orientation since 1970, and is regarded an everyday activity practised by human being [19,20]. It is also an activity that not the only practice among locals but also international tourists during visited foreign countries [21]. In a simple explanation, it is a process undertaken by a traveller moving from a point to another specific destination in the fastest or most effective way [22,23,24]. In this process, an individual will be involved with internal information and external information to make the decision.

Internal Information

The internal information includes the cognitive mapping skills and the sense of direction of an individual, having the knowledge ability to recognise the space they are in; the attitude of awareness of their environment; and the preference to depend on the environment to wayfinding [25]. The formations of internal information are based on two strategies including: (i) route based and (ii) survey knowledge that would determine the wayfinding performance of an individual [26,27]. Route strategy is following a particular set of instruction in order to navigate



from one place to another [28]; while the survey knowledge is making prediction to the distance of space and possible ways to navigate from the current positions [29]. Studies showed that the used of route strategies and survey knowledge are vary among genders [30]. For example, female prefer to use route strategy, whereas male prefer survey knowledge [31]. Although research has proven that route strategy help people better find the correct route back to their destination or finding shortcuts when they are lost or make a mistake [32,33]; people who engage survey knowledge are able to have a better wayfinding performance [31].

In the array of internal information, sense of direction also contributes to wayfinding performance as well. A sense of direction is a person thought of their self-efficacy regarding his or her ability to find their way in an environment [34]. According to Coshall, the better sense of directions of an individual the better they understand the route, and the more accurate and quickly they are able to reach their desired destination [35]. However, sense of directions is often determined by gender differences [36]. According to Lawton & Kallai, when compare to male, female tend to have more uncertainty and hesitation while they are in the process of wayfinding [37]. This trait often causes them to struggle and spending more time finding their way to the desired destinations [38,39]. Despite that male are more competent in wayfinding, recent study shows that female who are more masculine in characters generally have a better sense of directions [40].

External Information

On another hand, external information that is provided by the environment plays a crucial role to assist people to undertake successful wayfinding [41]. External information involves interactions between the users and the environment to successfully facilitate navigation to the desired location promptly [42,43]. This process often includes objects that are available in the environment such as signs, maps, the architecture in the wayfinding system to aid users [44,25,45]. Every element in wayfinding systems is essential and is able to influence the wayfinding process as it is the authentic observation of wayfinding performance [18]. However, if external information is badly designed, it will cause tourists to experience number of errors and extra time spent on navigation that may increases anxiety or physical injuries [46,47,48].

In addition, while safety is one of the major issues that often associated to wayfinding activities, Giddens mentioned that when tourists are performing wayfinding, they are perennially at risk [44,49,42,50]. The more unfamiliar an individual is towards a location while wayfinding, the riskier they are [51]. More often than not, the primary motivations for travels are to relax, tourists would not want to be interrupted by unpleasant incidents [52,53]. Thus, when the crime rate of the tourism attractions has increased, it will bring adverse effect to the image of the tourist destination [8]. The bad reputation of a tourism destination will stir up anxiety and fear emotions among tourists and affect the desire to travel [9]. In regards to the scenario, the importance to create a safe wayfinding experience among traveller is deemed vital to maintain the reputations of tourism, and this is largely contributed by the wayfinding system with the attention to user experience design [54].

User Experience Design in Directional Signages

Among all the signages, directional signages are one of the most important signs to assist tourists. Tzeng and Huang found out that directional signage had the most significant effect on tourist's wayfinding and satisfaction as they rely heavily on wayfinding to make a decision [17]. Many empirical studies stated that directional signage will be able to provide convenience

towards tourists as they inform tourists of their current location, directional signages point the way of potential destination [55,56,16].

In a directional signage, user experience design holds the central key in wayfinding for an individual [57]. Study shows that more than 90 percent of designers are unable to produce a good user experience design and signages are one of the objects where its elements are crucial to determine the influence of user experience among users [58]. Guo stated that there are four elements in user experience including adaptability, desirability usability and value. Among the four elements, usability and value are more crucial in creating the ideal user experience to help individuals to absorb wayfinding knowledge in order to successfully achieve wayfinding task. Usability refers to the ease of users' effort to achieve the task required by interacting with the system, whereas value referred to the usefulness of the system design [59,60].

Studies revealed that although there are more than 90% of tourists use signage information to enhance their wayfinding knowledge and improve their wayfinding performance, many tourists had a horrendous wayfinding experience as the design of signages are unable to provide accurate directions [24,61]. This is due to the different levels of literacy as well as vision and mobility impairment levels [62]. For example, Lloyd and Bunch stated that females tend to take longer time and have lesser understanding to wayfinding information [63]. This is due to most females are audio learners, where males are visual learners [64].

Therefore, in order to achieve good usability and value, typography, colour, images or symbols in the signs would influence the comprehension and effectiveness of wayfinding [65]. Studies suggested that to achieve good usability and value, signages should be more minimalist designed to better communicate with users. This will help lower frustrations and increase satisfaction during the process. Inconsistent design such as the use of colour, shapes and symbols will ultimately lead to confusion and will not contribute to achieving any wayfinding task [66,67]. Thus, in order to understand how a good directional signage design is formed, design components must be studied.

Design Elements on Directional Signages

Generally, there are eight types of design elements in directional signage design including typography, layout, colour, shape, environment, icons and symbols, size and ergonomic [68]. Among all, typography, colour, icons and symbols are the major design elements that would lead to the excellence of any built environment [69]. According to Rousek and Hallbeck, one of the most common signage design problems encountered by users is the inappropriate typography design [70]. Research shows that when attention is given to typography design, it eventually influences the legibility of the readers and represents the quality of the perceived architecture [71,72].

Colours, icons and symbols on the other hand are another essential guide to alert tourists to wayfinding. More often than not, an individual will first detect signage through colour to help them quickly define a space they are in, where else, icons and symbols often assist wayfinding in overcoming the problem of language barrier [25,73,74,75,76]. This is especially crucial for people with various literacy levels. Studies reveal that signage with a combination of icons and symbols have the highest visual information transmission efficiency among wayfinding, it is more apparent at one glance and tourists are likely to recognise image or symbol quickly even from a far distance [77,78].

Framework of Study

Social cognitive theory is employed in this study as shown in figure 1. According to Buckingham, cognition is the most important element that influence an individual behaviour [79]. Within the study of cognition, factors such as personal and environmental are keys to affecting the way an individual acquire and maintain certain behavioural patterns thus resulting in the process of user experience [80].

In this study, personal factors are determined by self-efficacy and outcome expectation where an individual's ability to wayfinding is studied through internal information. An individual's ability to visualise a particular issue in mind and how good they are able to overcome challenges will inform their wayfinding performance [81]. In addition, environmental factors are regarded as external information in an environment setting which include natural or manmade objects that project influence to an individual's ability and behaviour to complete a task [82].

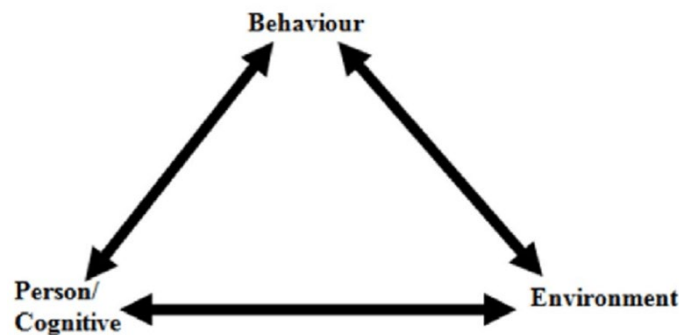


Figure 1: Social Cognitive Theory [83]

The focus of this study thus, is guided by a conceptual framework (Figure 2) with two key areas of user experience design: (i) Internal Information and (ii) External Information. Wayfinding ability as well as the design of signages are further investigated in order to identify the betterment of wayfinding performance.

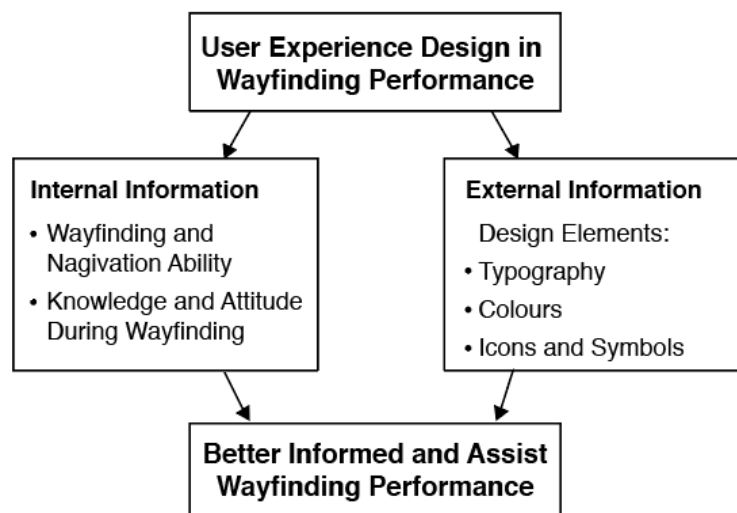


Figure 2: Conceptual Framework

3. MATERIALS & METHODS

In order to achieve the aim of this study to examine the existing design of directional signages in the vicinity of Golden Triangle in Kuala Lumpur, Malaysia, survey questionnaire was employed with the objective to investigate user experience design and identify the preferred design for directional signages among travelers. Upon non-probability purposive sampling, a total of 200 survey questionnaires were collected between February to June 2019. The sample populations were chosen based on specific characteristic including international tourists who have visited the vicinity of Golden Triangle, Kuala Lumpur [84].

Research Locale

Research was conducted in the vicinity of Golden Triangle in Kuala Lumpur, Malaysia. It is located at the northeast of Kuala Lumpur which covers the areas of Jalan Pudu, Jalan Changkat Dollah, Jalan Tun Razak and more [85,86]. As aforementioned, Golden Triangle is regarded as the main contributor that made Kuala Lumpur into one of the top 10th most visited city in the world [87]. Hence, it is a crucial location where most tourists are deemed to visit in the capital of Malaysia.

In addition, car transportation such as driving or taking a taxi can be expensive to commute, the dense traffic often makes a frustrating experience due to its high price, Golden Triangle has shifted to be a mobility city which encourages visitors to walk and public transport remains the main source to explore the vicinity [88,89]. In recent years, not only the city hall had built multiple pedestrian bridges to connect the main and outer edges of Golden Triangle, bike-sharing facilities were introduced to enhance tourists' experience in exploring the beauty of the vicinity [90,91].



Figure 3: Vicinity of Golden Triangle (street directory, n.d.)

Research Population

International tourists aged between 16-36 were chosen to be the respondents of this study. The age group represented the generation of Millennials who are most likely to travel during their leisure time compared to other generations [1]. According to UTWO, it was predicted that by the year 2020, approximately 300 million international tourists will be Millennials and they most preferred low-travel urban lifestyle by walking rather than driving [92,93].

Furthermore, study shows that most of the international tourists who are Millennials are highly concerned about their safety during their trips. They pay more attention to directional

signages and often refer to road sign to walk safely especially crossing an intersection [94,95]. In this study, 200 respondents were identified for each location (location A, B, C and D) of Golden Triangle, with the criteria that they are (i) international tourists; (ii) within the age of 16 – 36 years old; and (iii) had visited Golden Triangle.

Research Instrument

In this study, the survey questionnaires were designed in 4 sections with Section B, C and D adopted from previous studies conducted to examine wayfinding. In Section A, study examined the socio-demographic of respondents and questions in Section B were adopted from the study of Claessen, determining the wayfinding and navigation ability of an individual [96]. It consists of questions to understand the sense of directions, spatial anxiety scale as well as orientation strategies to help determine the problem encounter during wayfinding.

In order to examine the user experience in relation to efficiency and satisfaction of directional signage design, Usability Metric for User Experience Design was adopted in Section C. According to Finstad, the questionnaires were designed to measure the user experience of the signage user where its relationship to knowledge and attitude during wayfinding performance would be discovered [97]. Lastly, the preferred design for directional signages to help better informed and assist wayfinding are further identified in Section D where Usability After-study questionnaire was adopted [98]. This section was deemed vital to bring forward the insights of preference for design elements in directional signage, improving user experience in wayfinding which will eventually contribute to the effects of willingness to revisit a country.

Data Gathering Procedures

After pilot testing the instrument on thirty respondents, a debrief session with the surveyors was conducted to look for patterns in feedback. Several surveyors encountered hesitations with a number of survey question answer options, which they requested for clarification and given suggestions for different wordings. The feedback was used to revise the instrument, and then field test was performed with the revised version among a number of initial surveyors before starting actual data collection. Although this process was critical, yet, it allowed minimizing measurement error.

The actual data collection was conducted over a period of five months in 2019 and the survey were distributed on different days of the week to prevent any distortion effects. Among the 200 surveys distributed in the four locations of Golden Triangle, 70% ($n=140$) were collected through face-to-face and 30% ($n=60$) were collected through soft copies through Tablet device. Data were computerized with multiple dichotomies to undergo descriptive analysis.

Statistical Treatment

There were two statistical treatment given to the data. Firstly, with the computed data entry, they were transferred into Statistical Package for Social Sciences (SPSS), data were analysed through a univariate statistical analysis to provide a synthetic description of the basic features. It is worth noting that this study had only performed univariate analysis simple because the subject studied did not intend to imply specific pattern of correlation taken on the same unit at different times. However, the findings presented still do not alter the fact that the results cover a good deal of control over the subject studied. With this, an overall summary about the samples

and measures of every quantitative analysis of data were revealed. Secondly, in order to form a deeper understanding, cross-tabulation technique was performed to examine the joint frequency of cases based on two or more categorical variables. This allowed the study to look for relationships among data and issue-specific related to this research.

4. FINDINGS

This paper examined the design of directional signages in the vicinity of Golden Triangle in Kuala Lumpur, Malaysia. In particular, user experience design was investigated and the preferred design for directional signages to help better informed and assist wayfinding were further identified. With four sections of questionnaires designed, a total of 200 surveys were collected in five months. Results revealed the (i) wayfinding ability and navigations of tourists; (ii) the user experience design for wayfinding performance; and (iii) the preference for design elements in directional signage to improve user experience in wayfinding.

Demographics of Respondents

Table 1: Background of respondents

Age	Frequency (n=)	Percentage (%)
16 – 20	20	10
21 – 25	71	35.5
26 – 30	68	34
31 – 35	41	20.5
Gender		
Male	103	51.5
Female	97	48.5
Marital Status		
Single	147	73.5
Married	50	25
Divorced	3	1.5
Education Level		
Secondary and below	20	10
Undergraduate	104	52
Postgraduate	76	38
Income Level		
RM1,999 and below	64	32
RM2,000 – RM2,999	12	6
RM3,000 – RM3,999	19	9.5
RM4,000 – RM4,999	28	14
RM5,000 and above	77	38.5
First Visit to Golden Triangle		
Yes	168	84
No	32	18

Wayfinding and Navigation Ability

Results showed a great number of respondents agreed that they were good at distance estimation. 64.5 percent of the respondents had chosen “sometimes” ($n=93$) or “always” ($n=36$) to support the statement. In contrast, 35.5 percent ($n=71$) of the respondents rarely ($n=60$) or totally unable ($n=11$) to be good at estimating distance in an unknown location. Therefore, it proved that majority of the respondents are confident in estimating the distance to the destination.

Findings further revealed that females were less likely to be good at estimation of distance with more than half of the female respondents (56 percent, $n= 55$) were less likely to be good at estimating distance. On the contrary, 84 percent ($n=87$) of males were better at this skill (figure 4).

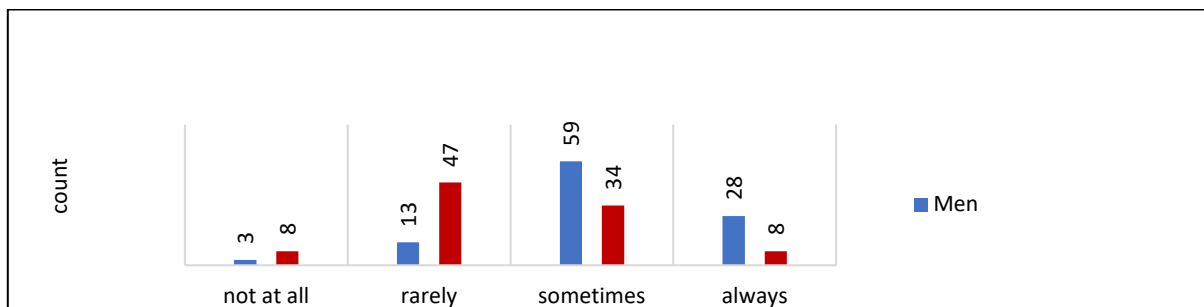


Figure 4: Females were rarely good at estimating distance compared to men

Findings reported that most of the respondents had good interpretations skills for wayfinding aids, where majority of the respondents (85 percent, $n=170$) were either able to sometimes or constantly interpret signage or map design. Only 15 percent ($n=30$) of the respondents were unable or rarely to interpret signage or map design. When compared further in figure 4, males clearly were more confident than females in interpretation of wayfinding systems.

Results reported that more than half of the respondents (64.5 percent, $n=129$) were not afraid of losing their way when travelling around. When compared further in figure 5, findings discovered that males were braver in wayfinding where majority of the female respondents ($n=51$) sometimes or always feel that they were afraid of losing their way (figure 5).

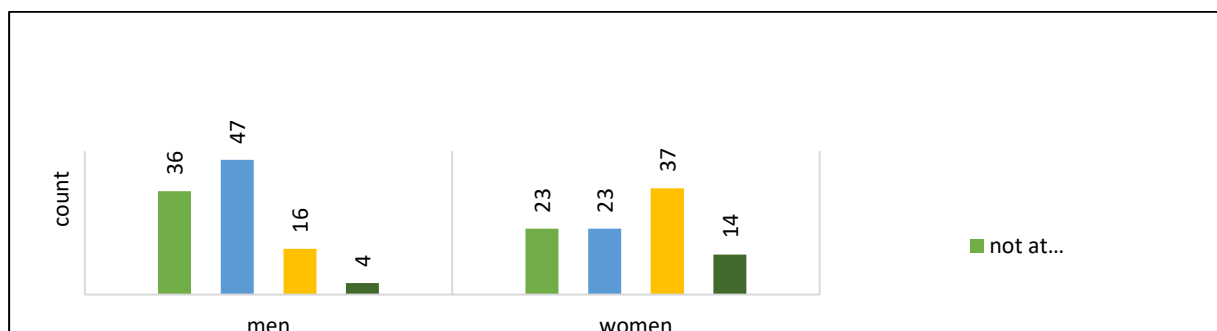


Figure 5: Females tend to be more afraid of losing their way when travelling

Knowledge and Attitude During Wayfinding

Over half of the respondents (64.5 percent; $n=125$) agreed that the design of directional signage is not easy to navigate within Golden Triangle, whereas less than 40 percent ($n=75$) of the respondents felt otherwise. In comparison, both males and females agreed that the design of directional signage was not easy to navigate in Golden Triangle.

In relation to poor design for directional signage leads to wayfinding problem (Bosman and Rusinek, 1997 as cited in Stempler & Polger, 2013), results showed that one quarter of the respondents (40.5 percent, $n=81$) were unable to accomplish their tasks during their visit in Golden Triangle. When compared further in figure 6, findings revealed that females ($n=44$) were less likely to accomplish the wayfinding task through directional signages while 70 percent ($n=66$) of male respondents felt that directional signages were actually helpful to achieving the wayfinding task.

In addition, four prime areas of Golden Triangle were compared (figure 7). Not only findings revealed that respondents perceived the directional signages in locations A, C and D were poorly designed, respondents felt frustrated to use directional signage to assist them in wayfinding.

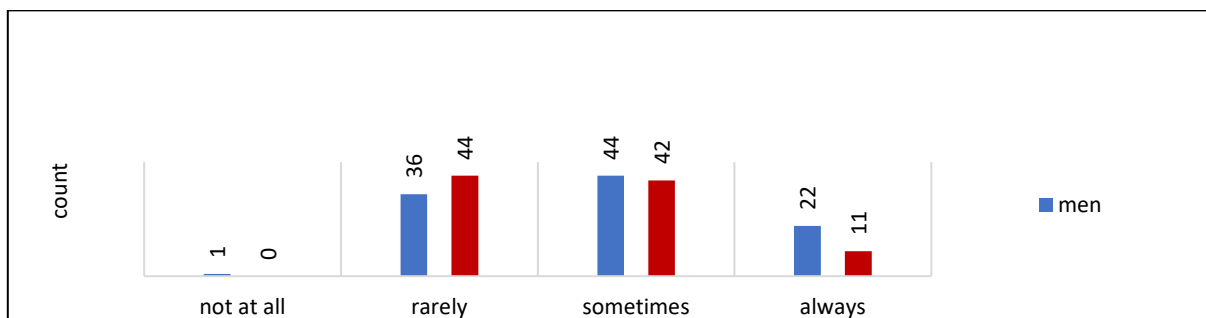


Figure 6: Females were less likely to accomplish wayfinding task compared to men

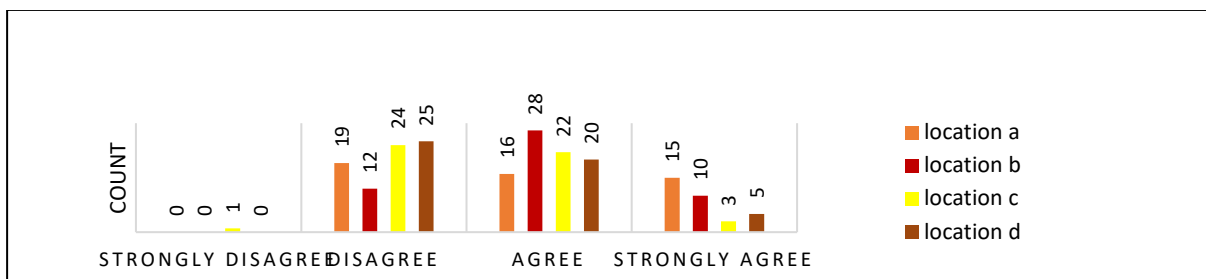


Figure 7: The directional signages in Location B was perceived easier in assisting wayfinding

With the existing directional signages in Golden Triangle that were perceived less helpful to wayfinding, a total of 136 (68 percent) respondents highlighted that the directional signages design needed more improvement, while 32 percent ($n=64$) of the respondents disagree the need for improvement. Despite both male and female respondents were equally not impressed by the current design and agreed there was a need to further improve the directional signages design, figure 8 showed that such improvement was more crucial for Location C and D rather than A and B.

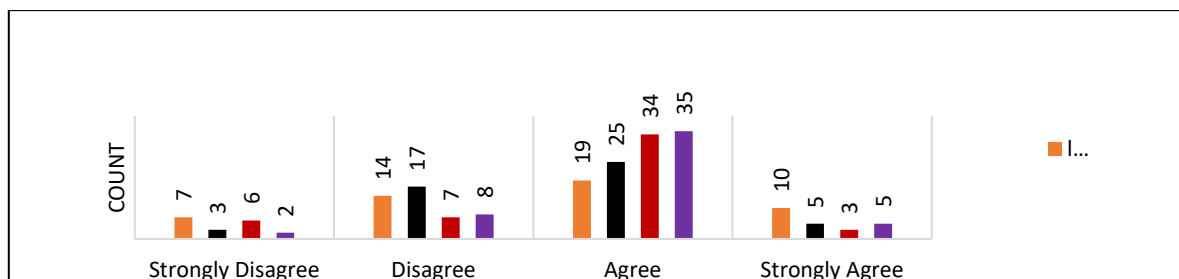


Figure 8: Improvement for directional signage design in Location C and D were more crucial than others

Preference for Design Elements in Directional Signages

Typography: Between Serif and San Serif fonts, not only respondents most preferred San Serif to be used on directional signages, they highly preferred to have San Serif in Bold type family. Of all the San Serif typefaces, findings in figure 9 revealed that respondents most preferred Arial (34 percent, $n=65$) and followed by Futura (31 percent, $n=62$) where Arial was more preferred by males while females preferred the use of Futura.

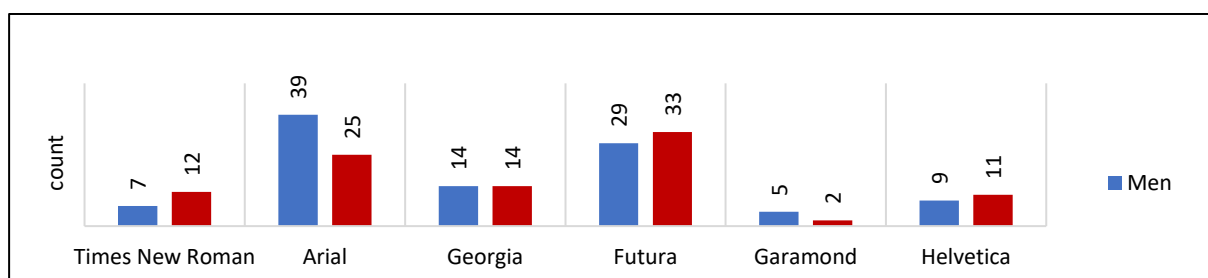


Figure 9: San Serif font such as Arial and Futura were more preferred by the respondents

Among the four prime areas in Golden Triangle, Arial was highly preferred in Location C followed by Futura in Location D (figure 10). The top two reasons were due to easy for reading and typefaces were more noticeable when used on directional signages. Overall, the least preferred typefaces were Helvetica (10 percent, $n=20$), Times New Roman (10 percent, $n=19$), and Garamond (4 percent, $n=7$), where Garamond was the least preferred typeface for directional signage design.

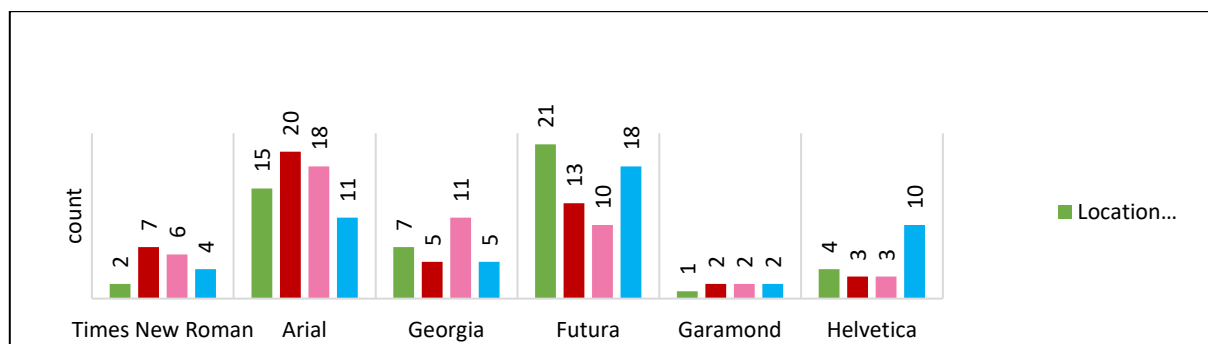


Figure 10: Arial was more preferred in Location B and C while Futura was preferred in Location A and D for typefaces used on directional signage design

Colours: Between cool and warm colours, majority of the respondents (44 percent; $n=87$) preferred cool colour to be applied as the background on directional signages while neutral colour (18 percent; $n=35$) was the least preferred among the respondents. In contrast, males ($n=49$) would prefer cool colour more than female ($n=43$) respondents (figure 11). Findings further reported in figure 12, warm colours were more preferred in location A ($n=24$) and D ($n=19$), while cool colour were preferred more by respondents in location B ($n=25$) and C ($n=28$).

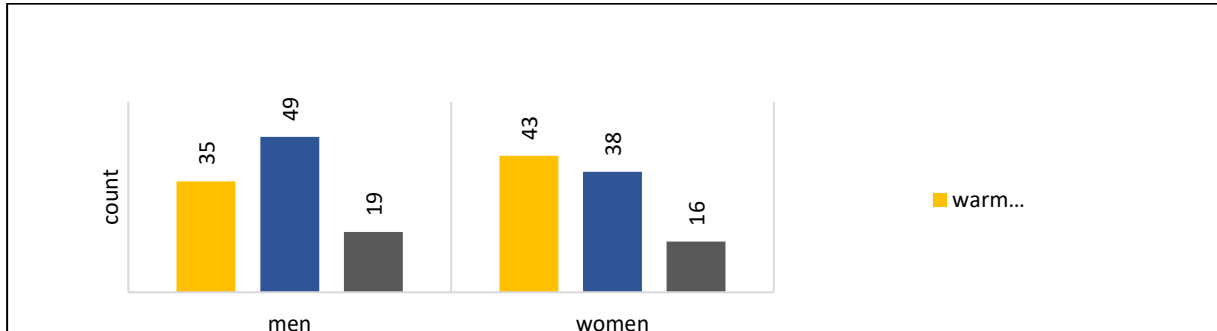


Figure 11: Cool colours were more preferred by males while females preferred warm colours

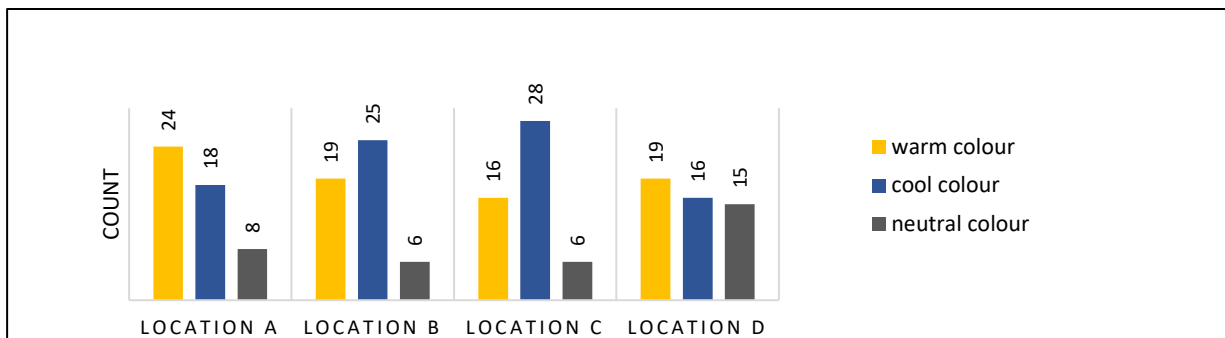


Figure 12: Warm colours were more preferred in Location A and D while B and C preferred cool colours

Icons: Among the four types of icons used on the existing directional signages (figure 13), respondents most preferred abstract ($n=129$) followed by silhouette ($n=43$). The least preferred design were neutral realistic ($n=15$) and caricature ($n=13$). On the overall, findings reported that 48 percent ($n=96$) of the respondents perceived abstract was easier to interpret; its minimalist design was perceived to be able to provide accurate representation (17 percent; $n=34$) and it gave a reliable look ($n=21$).

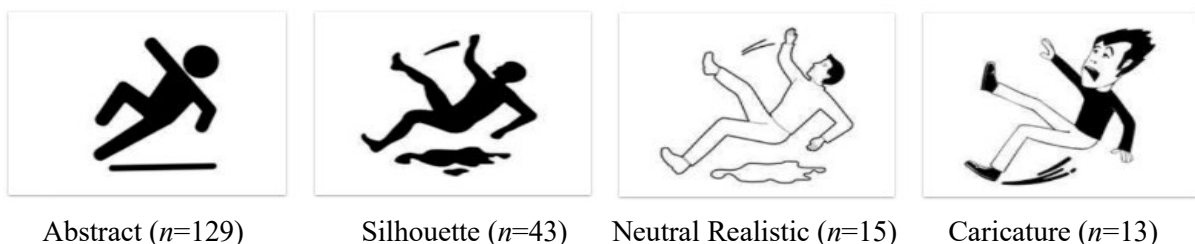


Figure 13: Abstract was the most preferred icon to be used on directional signages

Symbols: Between two types of arrows that were the most commonly applied symbols in the existing directional signage design, findings revealed that over 90 percent ($n=188$) of the respondents most preferred arrow with shaft. It was due to its simple and clearly illustrated design (32 percent; $n=63$), and respondents were able to interpret the information easily 31percent ($n=61$). On the opposite, results presented in figure 14 reported that design factors such as familiarity ($n=31$), being noticeable ($n=24$) or able to assist them to easily differentiate the locations ($n=21$) were not the main concern for the respondents.

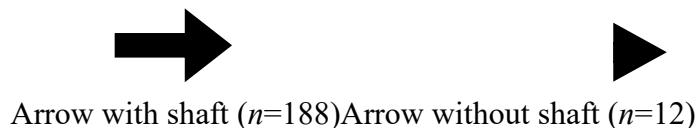


Figure 14: Arrow with shaft was the most preferred symbol to be used on directional signages

Overall Design Elements: In figure 15, result revealed that Hybrid design was most preferred by the respondents (25 percent; $n=49$) followed by either a single used of icons ($n=42$) or symbols ($n=48$). That said, the least preferable design was the combination used of text and symbols (4 percent; $n=7$) or just using icon only (2 percent; $n=4$). However, when compared further, findings showed that majority of the females ($n=29$) preferred the used of just text and icon while males were more likely to prefer hybrid ($n=30$) or with the combined used of icons and symbols ($n=32$). Despite the variance in preferences, figure 16 reported that respondents wanted the design of directional signages to allow them to interpret information faster ($n=119$) and the used of visuals should present good navigation understanding ($n=41$).

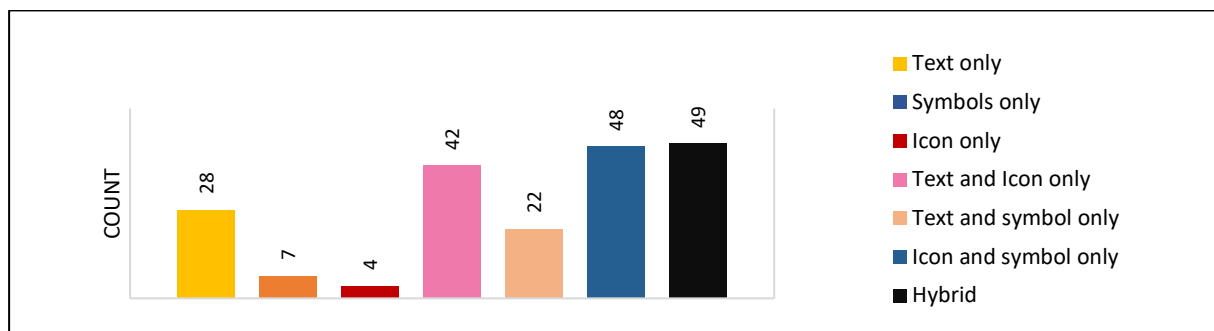


Figure 15: Respondents most preferred Hybrid design followed by the used of symbols and icons

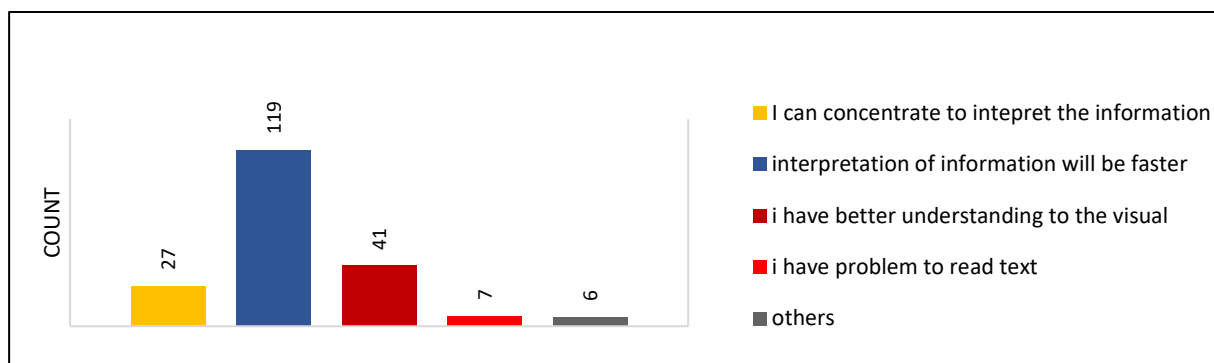


Figure 16: Respondents wanted the directional signages design to allow them to interpret the information faster



5. CONCLUSION

Directional signage is a crucial wayfinding tool to determine the wayfinding performance. It often relates to an individual safety and willingness to revisit a city such as Golden Triangle in Kuala Lumpur, Malaysia. This study examined the user experience design of directional signages in the vicinity of Golden Triangle. In particular, three areas were further investigated including: (i) wayfinding and navigation ability; (ii) knowledge and attitude during wayfinding; and (iii) preference for design elements in directional signage. 200 survey data were analyzed, and findings reported the lack of attention to user experience design in the directional signages at the vicinity of Golden Triangle is highly apparent.

More than one quarter of the tourists spent a long time or struggled to understand signages within Golden Triangle. Especially within location A, C and D where tourists pointed out that the directional signages were unable to assist them in wayfinding nor to helping them accomplish their tasks. Not only tourists were less satisfied with the existing directional signages design in Golden Triangle, they often struggle to interpret the information. As a result, frustration and anxiety are built up easily when they are required to find their way especially at the location A, C and D.

Apart from the less satisfactory directional signages design, an insufficient amount of directional signages provided within the vicinity of Golden Triangle was underlined. While majority of the respondents depend heavily on the directional signages as their main source to wayfinding, this situation had caused them unable to navigate themselves, moving from one location to another. That said, respondents suggest a need to increase the directional signages. More importantly, they prefer a revised design to replace the current signages to better informed and aid their wayfinding performance.

In this study, three main arrays of design elements are more preferred. In relation to typography, bold San Serif fonts such as Arial and Futura are more preferred. They are easier to read and highly noticeable when applied onto the directional signages. Furthermore, cool colour represents an overall preference however females tend to prefer warm colours for signage background. In terms of icons and symbols, abstract icons are more preferred than caricature icons. They perceived abstract icons easier for interpretation, and with its minimalist design abstract icon is able to provide accurate representation and carries a reliable look.

In addition, arrow with shaft is the most likeable symbol design for its simple and clear illustration to help the individual interpret information easily. Whether it is a familiar symbol, or an easily noticeable symbol is not the main concern in wayfinding. Nonetheless, respondents highly prefer Hybrid design such as the combination of icons and symbols use for directional signages. More importantly, their preference for an improved directional signage design are associated with noticeability, readability and visibility.

On the overall, the findings open many doors for the user experience design of directional signages in Golden Triangle moving forward. These data provide a preliminary indicator of how a directional signage can be better designed to aid the wayfinding among the many future tourists continue to visit Golden Triangle in Kuala Lumpur. In order to determine these implications, further analysis will be conducted among local residents as they are frequently exposed to signages around the vicinity of Golden Triangle prior to establishing a more beneficial design to better enhance wayfinding performance.



REFERENCES

- [1] Chiu, L. K., Ramli, K. I., Yusof, N. S., & Ting, C. S. (2015). Examining Young Malaysians Travel Behaviour and Expenditure Patterns in Domestic Tourism. *Asian Social Science*, 11(9), 77. <http://doi.org/10.5539/ass.v11n9p77>.
- [2] Hanafiah, M. H. M., & Harun, M. F. M. (2010). Tourism demand in Malaysia: A cross-sectional pool time-series analysis. *International Journal of Trade, Economics and Finance*, 1(2), 200. Retrieved 18 March 2018, from <http://www.ijtef.org/papers/36-C199.pdf>
- [3] Hassan, H., & Nezakati, H. (2014). *Hospitality and Tourism Sustainability*. Retrieved 18 March 2018, from https://www.researchgate.net/profile/Hossein_Nezakati/publication/279949034_Green_Tourism_Practices_in_Malaysia/links/559f4b7b08ae97223ddc6640/Green-Tourism-Practices-in-Malaysia.pdf
- [4] Nair, V., Chiun, L. M., & Singh, S. (2014). The international tourists' perspective on Malaysia's economic transformation programme (ETP). *Procedia-Social and Behavioral Sciences*, 144, 433–445. <https://doi.org/10.1016/j.sbspro.2014.07.313>.
- [5] Ujang, N., & Muslim, Z. (2014). Walkability and attachment to tourism places in the city of Kuala Lumpur, Malaysia. *Athens journal of Tourism*, 1(1), 53–66. Retrieved 14 March 2018, from <https://www.atiner.gr/journals/tourism/2014-1-1-4-Ujang.pdf>
- [6] Bouchon, F. A. (2014). Truly Asia and global city? Branding strategies and contested identities in Kuala Lumpur. *Place branding and public diplomacy*, 10(1), 6–18. <http://doi.org/10.1057/pb.2013.21>.
- [7] *KL ranked 10th among world's most visited cities*. (2017, December 15). The star. Retrieved 10 March 2018, from <https://www.thestar.com.my/news/nation/2017/12/15/kl-ranked-10th-among-worlds-most-visited-cities/#3EtGtqZDIZJZ7MIG.99>.
- [8] Amir, A. F., Ismail, M. N. I., & See, T. P. (2015). Sustainable tourist environment: Perception of international women travelers on safety and security in Kuala Lumpur. *Procedia-Social and Behavioral Sciences*, 168, 123–133. <http://doi.org/10.1016/j.sbspro.2014.10.218>.
- [9] Anuar, A. N. A., Bookhari, S. N., & Aziz, N. A. (2012). The effectiveness of Safe City Programme as safety basic in tourism industry: Case Study in Putrajaya. *Procedia-Social and Behavioral Sciences*, 42, 477–485. <http://doi.org/10.1016/j.sbspro.2012.04.213>.
- [10] Yang, L., Sharif, P., & Khoo-Lattimore, C. (2015). Tourists' risk perception of risky destinations: The case of Sabah's eastern coast. *Tourism and Hospitality Research*, 15(3), 206–221. <http://doi.org/10.1177/1467358415576085>.
- [11] Heimtun, B., & Abelsen, B. (2013). Singles and solo travel: Gender and type of holiday. *Tourism Culture & Communication*, 13(3), 161–174. <https://doi.org/10.3727/109830414X13911221027443>.
- [12] Disegna, M., & Osti, L. (2016). Tourists' expenditure behaviour: the influence of satisfaction and the dependence of spending categories. *Tourism Economics*, 22(1), 5–30. <http://dx.doi.org/10.1016/j.apergo.2007.07.002>.
- [13] Vilar, E., Rebelo, F., Noriega, P., Duarte, E., & Mayhorn, C. B. (2014). Effects of competing environmental variables and signage on route-choices in simulated everyday and emergency wayfinding situations. *Ergonomics*, 57(4), 511–524.
- [14] Yanita, K. (2011). The role and effectiveness of signage system in kirishima-yaku national park (Master thesis) retrieved from Asia Pacific University.
- [15] Huelat, B. J. (2007). Wayfinding: Design for understanding. *The Center for Health Design: Concord, CA, USA*. Retrieved 18 March 2018, from <https://www.healthdesign.org/chd/knowledge-repository/wayfinding-design->



- understanding
- [16] Arditi, A. (2017). Rethinking ADA signage standards for low-vision accessibility. *Journal of vision*, 17(5), 8-8. <http://doi.org/10.1167/17.5.8>.
 - [17] Tzeng, S. Y., & Huang, J. S. (2009). Spatial forms and signage in wayfinding decision points for hospital outpatient services. *Journal of Asian Architecture and Building Engineering*, 8(2), 453–460. Retrieved 14 March 2018, from https://www.jstage.jst.go.jp/article/jaabe/8/2/8_2_453/_pdf
 - [18] O'Neill, M. J. (1991). Effects of signage and floor plan configuration on wayfinding accuracy. *Environment and Behavior*, 23(5), 553–574. <https://doi.org/10.1177/0013916591235002>.
 - [19] Garcia-Castro, A. (2007). *A User-Perspective Approach for the Design of Modern Bilingual Airport Signage* (Doctoral dissertation). Retrieved from Georgia Institute of Technology.
 - [20] Ahmadi, V. (2018). *Algebraic Specifications of Wayfinding Cognitive Map*. Retrieved 18 February 2018, from <http://arxiv.org/abs/1801.04966>
 - [21] Chang, H. (2013). Wayfinding strategies and tourist anxiety in unfamiliar destinations. *Tourism Geographies*, 15(3), 529–550. <http://doi.org/10.1080/14616688.2012.726270>.
 - [22] Tam, M. L. (2011). An optimization model for wayfinding problems in terminal building. *Journal of Air Transport Management*, 17(2), 74–79. <http://doi:10.1016/j.jairtraman.2010.06.001>.
 - [23] Holscher, C., Tenbrink, T., & Wiener, J. M. (2011). *Would you follow your own route description? Cognitive strategies in urban route planning*. *Cognition*, 121 (2), p. 228–247. <http://doi:10.1016/j.cognition.2011.06.005>.
 - [24] Xie, H., Filippidis, L., Galea, E. R., Blackshields, D., & Lawrence, P. J. (2012). Experimental analysis of the effectiveness of emergency signage and its implementation in evacuation simulation. *Fire and Materials*, 36(5-6), 367–382. <https://doi.org/10.1002/fam.1095>.
 - [25] Arthur, P., & Passini, R. (1992). *Wayfinding: People, Signs, and Architecture*. McGraw-Hill.
 - [26] Carlson, L. A., Hölscher, C., Shipley, T. F., & Dalton, R. C. (2010). Getting lost in buildings. *Current Directions in Psychological Science*, 19(5), 284–289. <https://doi.org/10.1177/0963721410383243>.
 - [27] Nori, R., Grandicelli, S., & Giusberti, F. (2009). Individual differences in visuo-spatial working memory and real-world wayfinding. *Swiss Journal of Psychology*, 68(1), 7–16. <https://doi.org/10.1024/1421-0185.68.1.7>.
 - [28] Prestopnik, J. L., & Roskos-Ewoldsen, B. (2000). The relations among wayfinding strategy use, sense of direction, sex, familiarity, and wayfinding ability. *Journal of Environmental Psychology*, 20(2), 177–191. <https://doi.10.1006/jevp.1999.0160>.
 - [29] Manganelli, J (2016). *Wayfinding in a Complex Indoor Environment: Correlation of Way Finding Experience, Survey Knowledge, and Route Knowledge*. Unpublish Master's Thesis. Clemson University.
 - [30] Pazzaglia, F., & Taylor, H. A. (2007). Perspective, instruction, and cognitive style in spatial representation of a virtual environment. *Spatial Cognition and Computation*, 7(4), 349–364. <https://dx.doi.org/10.1080/13875860701663223>.
 - [31] Chen, C., Chang, W., & Chang, W. (2009). Gender difference in relation to wayfinding strategies, navigational support design, and wayfinding task difficulty. *Journal of Environmental Psychology*, 29, 220–226. <https://dx.doi.org/10.1016/j.jenvp.2008.07.003>.
 - [32] O'keefe, J., & Nadel, L. (1978). *The hippocampus as a cognitive map*. Oxford: Clarendon Press.



- [33] Lawton, C. A. (1994). Gender differences in way-finding strategies: Relationship to spatial ability and spatial anxiety. *Sex roles*, 30(11-12), 765–779. <https://doi.org/10.1007/BF01544230>.
- [34] Mckeen, J. (2011). *Factors Related to Social Wayfinding, Environment, Ability and Anxiety* (Doctoral dissertation). Retrieved from The University of Alabama.
- [35] Coshall, T. (2003). The threat of terrorism as an intervention on international travel flows. *Journal of Travel Research*, 42(1), 4–12. <https://doi.org/10.1177/0047287503253901>.
- [36] Hsu, M. H., Ju, T. L., Yen, C. H., & Chang, C. M. (2007). Knowledge sharing behavior in virtual communities: the relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*, 65, 153–169. <https://doi.org/10.1016/j.ijhcs.2006.09.003>.
- [37] Lawton, C. A., & Kallai, J. (2002). Gender differences in wayfinding strategies and anxiety about wayfinding: A cross-cultural comparison. *Sex Roles*, 47(9-10), 389–401. <https://doi.org/10.1023/A:1021668724970>.
- [38] Huang, T., Chang, Y., Lin, J. Ko, W., & Chang, C. (2012). Gender differences in wayfinding in virtual environments with global or local landmarks. *Journal of Environmental Psychology*, 32(2), 89–96. <https://doi.org/10.1016/j.jenvp.2011.12.004>.
- [39] Ghamari, H. (2014). *Examining eye fixations during wayfinding in unfamiliar environments* (Doctoral dissertation). Retrieved from Texas Tech University Libraries.
- [40] Yang, Y., & Merrill, E. C. (2017). Cognitive and personality characteristics of masculinity and femininity predict wayfinding competence and strategies of men and women. *Sex Roles*, 76(11-12), 747–758.
- [41] Norman, D. A. (1998). *The design of everyday things*. Basic Books, New York.
- [42] Raubal, M. (2008). Wayfinding: Affordances and agent simulation. *Encyclopedia of GIS*. 1243–1246. https://dx.doi.org/10.1007/978-0-387-35973-1_1469.
- [43] Farr, A. C., Kleinschmidt, T., Johnson, S., Yarlagadda, P. K., & Mengersen, K. (2014). Investigating effective wayfinding in airports: a Bayesian network approach. *Transport*, 29(1), 90–99. <https://10.3846/16484142.2014.898695>.
- [44] Lynch, K. (1960). *The image of the city* (Vol. 11). MIT press.
- [45] Michon, P. E., & Denis, M. (2001). When and why are visual landmarks used in giving directions? *International Conference on Spatial Information Theory*, 292–305. https://doi.org/10.1007/3-540-45424-1_20.
- [46] Davis, R., Ohman, J. M., & Weisbeck, C. (2017). Salient cues and wayfinding in Alzheimer's disease within a virtual senior residence. *Environment and behavior*, 49(9), 1038–1065. <https://doi.org/10.1177/0013916516677341>.
- [47] Hund, A. M., & Minarik, J. L. (2006). Getting from here to there: Spatial anxiety, wayfinding strategies, direction type, and wayfinding efficiency. *Spatial cognition and computation*, 6(3), 179–201. https://doi.org/10.1207/s15427633scc0603_1.
- [48] Marks, L. (2018, January 11). Larapinta Trail: American hiker dies after taking wrong turn in 42C heat. *ABC News*. Retrieved 10 March 2018, from <http://www.abc.net.au/news/2018-01-11/larapinta-trail-american-tourist-dies-after-taking-wrong-turn/9319512>
- [49] Passini, R. (1984). Spatial representations, a wayfinding perspective. *Journal of environmental psychology*, 4(2), 153–164. [https://doi.org/10.1016/S0272-4944\(84\)80031-6](https://doi.org/10.1016/S0272-4944(84)80031-6).
- [50] Giddens, A. (2006). 'Fate, Risk and Security'. Cosgrave J. (ed.) *The Sociology of Risk and Gambling Reader*. Routledge: New York.
- [51] Urry, J. (2007). *Mobilities*. UKMA: Polity, Cambridge.
- [52] Kozak, M. (2002). Measuring comparative destination performance: A study in Spain and Turkey. *Journal of Travel & Tourism Marketing*, 13(3), 83–110.



- <https://doi.org/10.1080/10548400209511569>.
- [53] Bahar, O., & Kozak, M. (2007). Advancing destination competitiveness research: Comparison between tourists and service providers. *Journal of Travel & Tourism Marketing*, 22(2), 61-71. https://doi.org/10.1300/J073v22n02_05.
- [54] Anuar, N. K., Pagliari, R., & Moxon, R. (2014). *Airport Road Access Design Solutions: A Conceptual Study of Wayfinding Systems*. Retrieved 10 April 2018, from https://www.researchgate.net/publication/319987764_Airport_Road_Access_Design_Solutions_A_Conceptual_Study_of_Wayfinding_Systems
- [55] Carlsen, J., & Boksberger, P. (2015). Enhancing consumer value in wine tourism. *Journal of Hospitality & Tourism Research*, 39(1), 132-144. <https://doi.org/10.1177/1096348012471379>.
- [56] Correia, L., & Ascencao, P. (2006). Wine Tourism in Portugal: the Bairrada wine route. *Global Wine Tourism: Research, Management and Marketing*, CAB Internacional, Oxfordshire, 242-254. <https://dx.doi.org/10.1079/9781845931704.0242>.
- [57] Rosenzweig, E. (2015). *Successful user experience: Strategies and roadmaps*. Morgan Kaufmann.
- [58] Hartson, R., & Pyla, P. S. (2012). *The UX Book: Process and guidelines for ensuring a quality user experience*. Elsevier.
- [59] Guo, F. (2012). *More Than Usability: The Four Elements of User Experience, Part I*. Retrieved from <https://www.uxmatters.com/mt/archives/2012/04/more-than-usability-the-four-elements-of-user-experience-part-i.php>
- [60] Nielsen, J. (2008). Agile development projects and usability. *Jakob Nielsen's Alertbox*.
- [61] Cui, J., Allan, A., Taylor, M. A., & Lin, D. (2012). The perception of accessibility and ease of orientation of underground pedestrian systems: a survey in Shanghai. *International Journal of Urban Sciences*, 16(3), 301-320. <https://10.1080/12265934.2012.743744>.
- [62] Fuller, G. (2010). The arrow--directional semiotics: Wayfinding in transit. *Social semiotics*, 12(3), 231-244. <https://doi.org/10.1080/10350330216376>.
- [63] Lloyd, R & Bunch, R. (2008). Explaining Map-reading Performance Efficiency: Gender, Memory, and Geographic Information. *Cartography and Geographic Information Science*, 35(3), 171-202. <https://doi.org/10.1559/152304008784864677>.
- [64] Li, R. (2014). Why women see differently from the way men see? A review of sex differences in cognition and sports. *Journal of Sport and Health Science*, 3(3), 155-162. <https://doi.org/10.1016/j.jshs.2014.03.012>.
- [65] Ng, A. W., & Chan, A. H. (2008). The effects of driver factors and sign design features on the comprehensibility of traffic signs. *Journal of safety research*, 39(3), 321-328. <https://doi.org/10.1016/j.jsr.2008.02.031>.
- [66] Aucote, H. M., Miner, A., & Dahlhaus, P. (2012). Interpretation and misinterpretation of warning signage: Perceptions of rockfalls in a naturalistic setting. *Psychology, health & medicine*, 17(5), 522-529. <https://doi.org/10.1080/13548506.2011.644247>.
- [67] Garaus, M., Wagner, U., & Kummer, C. (2015). Cognitive fit, retail shopper confusion, and shopping value: Empirical investigation. *Journal of Business Research*, 68(5), 1003-1011. <https://10.1016/j.jbusres.2014.10.002>.
- [68] Jafari, M. (2014). *Graphic Design in Wayfinding in Airports: A Case Study of Signage System in Kuala Lumpur International Airport (KLIA)* (Doctoral dissertation). Retrieved from Universiti Sains Malaysia.
- [69] Calori, C., & Vanden-Eynden, D. (2015). *Signage and wayfinding design: a complete guide to creating environmental graphic design systems*. John Wiley & Sons.
- [70] Rousek, J. B., & Hallbeck, M. S. (2011). Improving and analyzing signage within a healthcare setting. *Applied ergonomics*, 42(6), 771-784.



- <https://doi.org/10.1016/j.jrurstud.2016.10.006>.
- [71] Garvey, P., Chirwa, K., Meeker, D., Pietrucha, M., Zineddin, A., Ghebrial, R., & Montalbano, J. (2004). New font and arrow for national park service guide signs. *Transportation Research Record: Journal of the Transportation Research Board*, (1862), 1-9. <https://doi.org/10.3141/1862-01>.
- [72] Uebele, A. (2007). *Signage systems & information graphics: a professional sourcebook*. Thames & Hudson.
- [73] Helvacioğlu, E. (2011). *Colour-emotion associations in interior spaces* (Doctoral dissertation). Retrieved from Bilkent University.
- [74] Solomon, S. (1999) *Emergency vehicle accidents - prevention and reconstruction*, Lawyers & Judges Publishing Company Inc. Arizona.
- [75] Opara, E., & Cantwell, J. (2013). *Best Practices for Graphic Designers, Color Works: Right Ways of Applying Color in Branding, Wayfinding, Information Design, Digital Environments and Pretty Much Everywhere Else*. Rockport Publishers.
- [76] Clara, S., & Swasty, W. (2017). Pictogram on Signage as an Effective Communication. *Jurnal Sosioteknologi*, 16(2), 167-176.
- [77] Zhang, Y., Zheng, X., Hong, W., & Mou, X. (2015). A comparison study of stationary and mobile eye tracking on EXITs design in a wayfinding system. In *Signal and Information Processing Association Annual Summit and Conference*. <https://10.1109/APSIPA.2015.7415350>.
- [78] Lipton, R. (2011). *The practical guide to information design*. John Wiley & Sons.
- [79] Buckingham, D. (2012). *Can Black Women Achieve Marital Satisfaction?: How Childhood Nurturing Experiences Impact Adult Marital Happiness*. BookBaby.
- [80] Eslami, A. A., Norozi, E., Hajihosseini, M., Ramazani, A. A., & Miri, M. R. (2017). Social cognitive theory as a theoretical framework to predict sustained abstinence 6 months after substance use treatment. *Journal of Substance Use*, 1-7. <https://doi.org/10.1080/14659891.2017.1394382>.
- [81] Schunk, D., & Usher, E. (2012). Social Cognitive Theory and Motivation. Psychology. <https://doi.org/10.1093/oxfordhb/9780195399820.013.000>.
- [82] Boateng, H., Adam, D. R., Okoe, A. F., & Anning-Dorson, T. (2016). Assessing the determinants of internet banking adoption intentions: A social cognitive theory perspective. *Computers in Human Behavior*, 65, 468-478. <https://doi.org/10.1016/j.chb.2016.09.017>.
- [83] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ, US: Prentice-Hall, Inc.
- [84] Baxter, L. & Babbie, E. (2004). *The basics of communication research*. Belmont, CA: Wadsworth/Thomson Learning.
- [85] Mak, S. (2016). *Golden Triangle Renaissance*. Retrieved 20 March 2018, from <http://www.starproperty.my/index.php/articles/property-news/golden-triangles-renaissance/>
- [86] Zakariya, K.A. (2006). *Refining Tourist's Place Experience Through Placemaking: A case study on middle east tourists in Kuala Lumpur City Centre* (Doctoral dissertation). Retrieved 5 March 2018, from https://www.researchgate.net/publication/41057942_Refining_tourist's_place_experience_through_placemaking_a_case_study_on_Middle_East_tourists_in_Kuala_Lumpur_City_Centre
- [87] FMT Reporters. (2018, January 3). Bukit Bintang increasingly popular with China, Middle East visitors. *Free Malaysia Today*. Retrieved 5 March 2018, from <http://www.freemalaysiatoday.com/category/nation/2018/01/03/bukit-bintang-increasingly-po>



- [88] Ravindran, S. (2017). KL to steer people from driving into city. *Metro News*. Retrieved 5 March 2018, from <https://www.thestar.com.my/metro/community/2017/05/30/steering-people-from-driving-into-the-city-mayor-says-limiting-the-number-of-parking-bays-will-only/>
- [89] Wong, M. (2014). *Parking options in Bukit Bintang KL*. The Star. Retrieved 18 March 2018, from <http://www.starproperty.my/index.php/articles/property-news/golden-triangles-renaissance/>
- [90] Bavani, M. (2009). *RM100 million allocation for walkways and skybridges with mini budget*. The Star. Retrieved 10 March 2018, from <https://www.thestar.com.my/news/community/2009/03/12/rm100mil-allocation-for-walkways-and-skybridges-with-mini-budget/#BRE0RjCyDYtXODOj.99>
- [91] Leong, T. (2018). *Kuala Lumpur's new cycling plan hits speed bump*. Strait Times. Retrieved 4 April 2018, from <https://www.straitstimes.com/asia/se-asia/kls-new-cycling-plan-hits-speed-bump>
- [92] UTWO,. (2011). The power of Youth Travel. Retrieved 28 March 2018, from http://cf.cdn.unwto.org/sites/all/files/pdf/amreports_vol2_thepowerofyouthtourism_englw.pdf
- [93] National Association of Realtors (2015, July 28). *Millennials Favor Walkable Communities, Says New NAR Poll* (Press release). Retrieved from https://nacto.org/wp-content/uploads/2016/02/1_Natl-Assoc-of-Realtors-2015-Community-Preference-Survey.pdf
- [94] Future Foundation. (2016). *Millennial traveller report*. Retrieved 20 March 2018, from <https://www.foresightfactory.co/wp-content/uploads/2016/11/Expedia-Millennial-Traveller-Report-Final.pdf>
- [95] Sowell, T. & Blasch, B. (1999). *Low Vision and Blindness: Research and Development* (4th ed.). Diane Publishing.
- [96] Claessen, M. H., Visser-Meily, J. M., Meilinger, T., Postma, A., de Rooij, N. K., & van der Ham, I. J. (2017). A systematic investigation of navigation impairment in chronic stroke patients: Evidence for three distinct types. *Neuropsychologia*, 103, 154-161. <https://doi.org/10.1016/j.neuropsychologia.2017.07.001>.
- [97] Finstad, K. (2010). The usability metric for user experience. *Interacting with Computers*, 22(5), 323-327. <https://doi.org/10.1016/j.intcom.2010.04.004>.
- [98] Toutziaris, V. (2017). *Usability of an adjusted IndoorTubes map design for indoor wayfinding on mobile devices*. Retrieved 25 March 2018, from http://cartographymaster.eu/wp-content/theses/2017_Toutziaris_Presentation.pdf



Cinemagraph Technique as New Media in Public Service Announcement (PSA) On Health Campaign; A Conceptual Paper

***Fahmi Samsudin, Rosita Mohd Tajuddin**

Faculty of Art and Design, Universiti Teknologi MARA, Shah Alam 40450, Shah Alam,
Selangor, Malaysia

*E-mail: emisamsudin@yahoo.com

ABSTRACT

Public health awareness is one of the strategies to inform and deliver designated messages to inform viewers on the health issue with varies of medium. This study purposed to enhance the current PSA campaign for better version of interactivity and ease of understanding. Nowadays health issue raised globally, especially in Malaysia whereby the targeted major cause of death was non-communicable diseases (NCD) and this resulting the country is on the top list for the several severe diseases. From this, the issue can be related with understanding of healthcare among the public and effectiveness of the health campaign towards them is in beneath the expected. This study would help in developing the new media of moving image in public health campaign, by exploring the public's apprehension against the health concern and references from the theory of general communication system. As the results, this study is expected to create new direction not only focusing on health campaign, but applicable in another fields on advertising. Mix method approaches were used in this study, by which the quantitative approach through questionnaire was conducted at the first stage to identify public's understanding on the present health issue. Meanwhile, a qualitative method of interview was conducted among the specialists from related industries to gain their insights on their perceptions towards the new approach in delivering health care message. Following this, the study enabled to help in evolving the variations of techniques in advertising to increase health care awareness. Additionally, professionals from advertising industries will adapt the concept of interactivity in moving image according to demand. Next, the future of health care understanding among public will be improved as their thoughts on one self-health will be changed perceptively.

Keywords: Cinemagraph, PSA, Health, Advertising, Interactivity

1. INTRODUCTION

Malaysia is spotted in one of the top of the list for the chronic non-communicable diseases cause of death, with two other south east Asia country which is Brunei and Singapore (Dans et al., 2011). Meanwhile, another list on the common deaths also showed that Malaysia is on the verge for the road injuries causes. Not only these two percentages, according to Ministry of Health Malaysia, 2019 stated that major caused of hospitalization among public on both private and government hospital were from respiratory and circulatory system and not only on that, certain infectious and parasitic diseases also recorded as among the caused. What makes the number of serious illness cases still at peak while the current campaign by related parties has been held throughout the nation is maybe when the level of acceptance and awareness of health matter towards the public. This can be happening because of the level of awareness among the public towards the health issue is still at modest. For example, the campaign of Tak Nak Merokok were held on 2004 with varies of printed and video ads were published nationally, somehow put the campaign itself as total failure, as results stated about 20000 deaths are



reported annually and more than of the number were identified related with smoking that contribute to the disability-adjusted life years (DALYs) (National Health and Morbidity Survey, 2005; Malaysian Burden of Disease and Injury Study, 2018). From this, come with the objective of this study whereby to measure the public's awareness on health issue according to the health campaign published. Then to introduce the new technique of cinemagraph as an enhancement of current printed ads of health campaign based on the theory general communication system by Shannon and Weaver (1948) and then see how effective of this concept among the health campaign in Malaysia. To make sure the process of the study going well, some of the identified methodology has been recognized and already in development, which is mix method of quantitative and qualitative for the data collection. It will involve target audience of public from age of 21 till 60 years of age for the random sampling, and several well-known specialists from each of their background such as advertising, photo and video, health science, public relation, and health education

2. HEALTH ISSUE

Global issue nowadays was rise with several topics that happened for years, and up till now there is few options to resolve it, whereby new issue related to each of the topic began to start new problem. Health issue is one of the major catastrophic facing by each of the country worldwide, facing difficulties to end up the percentage or numbers in the associated concern. Fifty-six million people die in 2017 (Ritchie & Roser, 2018) while thirty-six million each year died caused by non-communicable diseases, such as cardiovascular disease, cancer, diabetes, and chronic lung diseases, and it is almost two-thirds of the estimated of fifty-six million deaths each year worldwide (Shah, 2014). The percentage of health issue showing negative falling whereby it continuously raised year by year, with commonly caused by risky diseases. According to World Health Organization (WHO) on 2019 stated that the percentage of deaths worldwide were at 70% which equivalent to forty-one million people globally having this issue, that caused by non-communicable diseases such as diabetes, cancer, and heart disease. Serious health issue like this is not only occurred on worldwide, but as well as in Asian countries whereby some of the places were recorded even beyond expectation from the western countries. According to Kanyakumari, 2018 stated that heart disease is the major cause of death in southeast Asia, while it home to 26% from the world population, 14.5 million deaths were recorded in south east Asian countries and 3.9 million from it were due to the communicable disease (CDs). According to Plianbangchang and Narain, 2012 discussed on the worrying facts of the new death threat caused by non-communicable disease on both public and national and international health security. Following this, Ministry of Health, 2019 stated on the reports on health facts in Malaysia, reveal on the top ten principals caused of deaths in both private and government hospital in 2018, and among the biggest caused were respiratory system diseases and circulatory system, both were tremendously with 18.73% and 21.65% from the overall cases reported in these hospitals. Significantly, proved that non-communicable diseases (NCDs) is one of major cause death Malaysia. In addition, NCDs reported as estimation around 74% of all deaths were from it, and 35% were from cardiovascular, 17% communicable, maternal, perinatal and nutritional conditions, while the rest were diabetes, injuries, and chronic respiratory diseases respectively (WHO, 2018).

In particular, what makes Malaysia distinguished in these health issues is from the lifestyle of society itself, whereby the country is well-known for the great food and tasty dishes from all over the place, and it is one of the factors effecting the numbers of disease percentage at high. Awareness on the health issue is crucial for discussion to raise among the community so the issue will be clarified as soon as possible, because it related with people's live, and it does



matter to each of the parties of ministry of health and also for the country, as it resulting healthy and quality nation. The responsibilities of this issue are not on the related parties, but as well as the community and one self to self-aware about the important of making health matter.

3. PUBLIC SERVICE ANNOUNCEMENT (PSA) OF HEALTH CAMPAIGN

Advertising is one of ways to selling or to market the products and services to targeted audiences through several media such as printed ads, billboard, radio ads and television ads. It is not only focus on selling items or promoting services, but also in delivering useful knowledge, especially in regarding health, life, and other related issue, and one of the categories is public service announcement (PSA) health campaign where it is focusing on the conveying convenient health information related to the audience. According to Robinson et al., 2014 claimed that health communication campaigns contains a concept of interspersed approach in delivering the information designated with directly and indirectly, which in some other words it is to inform, influence, and persuade target viewers on the managing and conserving their healthful behaviors throughout entire time.

Main reason of the health campaign exist is to showing the goodness of healthy lifestyle, and how to take a good care of one self in health matter, in extension of helping gaining awareness of current health problem in certain places. The concept of health promotion, self-care and community participation is widely incorporated in the national health agenda documents and policies around the globe (WHO, 2007), as well as it is seen as one excellent approach in developing healthy community and active life style. It represents a comprehensive approach to bringing about social change in order to improve health and wellbeing (HSE, 2011). Several types of public health announcement (PSA) exist for example printed ads, television advertising, billboard advertising, and radio advertising, which can be easily seen in certain places like public clinic and hospital, library and even education channel in television. For instance, Tak Nak Merokok campaign held by Kementerian Kesihatan Malaysia back on 2004 were tremendously resulted of both positive and negative, published through various media like printed packaging on cigarette boxes, printed ads, and video campaign. The printed ads of Tak Nak Merokok campaign is visually showed the concept of fear appeals messages as the content, whereby the picture of lungs cancer, mouth cancer, brain damage, and pre mature labour were indeed use to inform viewers especially the target audience feel scare and fear of the cause of smoking. Some of the approach may or may not affect the viewers, according to the oneself willingness of acceptance the information they seen from the visual. Following this, powerful content in advertising especially in health campaign as for this study, needs to be focus on where hopefully can help in those related in needs.

4. CINEMAGRAPH TECHNIQUE

Cinemagraph is a new media format that contains both video and still image and one frame, while some parts in the frame highlighted are moving loop seamlessly and other will remain the same (Bai et al., 2013) and it does create impressive and interesting movement with this new medium (Samsudin, 2017). This technique is believed to be new enhancement towards the current still image and video whereby it gives another dimension of interactivity towards the viewers. According to Samsudin, 2017 proves that more than 70% of the viewers were prefer this technique by the elements of movement highlighted in the media. The technique existed from the famous Harry Potter movie where the creator created a scene that shows a part whereby the whole frame is still in photograph but certain parts highlighted move interactively. Following this, the cinemagraph started to pull out as a new technique to become another

category in photography instead still image and video. What makes the technique of cinemagraph is different from other media, is that the characteristic of the media itself creates another dimension.

The medium is in between video and photograph that contains both advantages that creates impressive movement. By drawing attention to a single dynamic area, it is often a more effective way of communicating as compared to traditional mediums such as photography and videos (Loh, 2014). Cinemagraph are a compelling way to convey dynamic aspects of a scene (Oh, 2017) correspondingly, it is further intensify the realism of a photograph through the display of subtle movement within the photographic composition (Niewland, 2012).

5. THEORY OF GENERAL COMMUNICATION SYSTEM

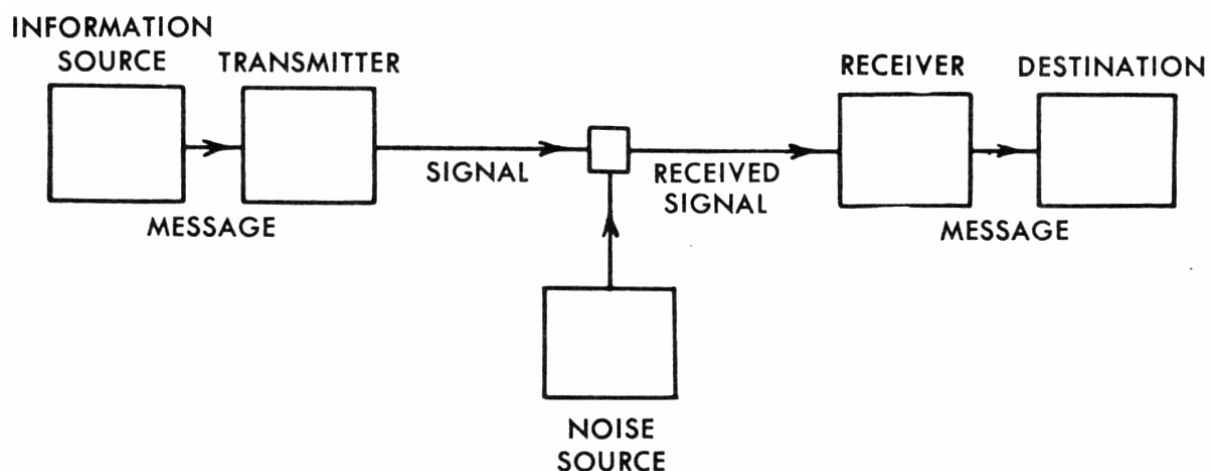


Figure 1: Theory of general communication system, 1948 [17]

According to the Figure 1 above, showing the general communication system by Shannon and Weaver (1948) that this study is referring to for the whole concept. The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point (Shannon, 1948). For instance, the communication of health campaign is involving the content related with health, and will be through the media identified to carry on the information towards the target audience. But the problem is on the first stage of the communication system according to the figure above, information source under the message phase, whereby the content needs to be convenient and synchronize with the media use. According to Shannon (1948) explained that each of the system must be designated to functioning each of the other possible selection, because each will be related to another one and it does not run by itself. Following this, current health campaign facing the problem of media chosen as well as the information source, whereby the element of the content is not capable to deliver the right information according to the needs of the viewers. Even if the right information source involves, but the transmitter or another word is referring to the media use for the campaign is not convenient. Thus, this study is equitable to overcome these issues whereby the concept of this research is come out with the new technique of cinemagraph or moving image that believed to be better that current media used, which is the printed ads.



6. CONCLUSION

Regarding of this matter, health issue is seen to be another future global crisis that will be happen if there is nothing take place to overcome the problem. World Health Organization, itself already voiced out on the global threat of health issue stating that human needs to focusing more on the several worldwide problems such as air pollution, global warming, non-communicable diseases, global influenza, Ebola and HIV. Another threat for current life of human is diabetes, where over 450 million people have it and in 2016, 1.6 million deaths were from diabetes. Heart disease, neuropathy (nerve damage), kidney damage, eye damage, foot problems and hearing impairment are all more common in people with diabetes (Fookes & Bpharm, 2019). Malaysia, especially is a country whereby its well known for the cultural and food over the place cannot be seen as another platform to introduce worldwide as the lead in health problem. In report by United States Renal Data System, 2018 showed that Malaysia in 8th place of worldwide for end-stage renal disease (ESRD) on 2016 with 259 individuals per million general population (PMP), meanwhile Malaysia scored on top of the list from around the world for ESRD treated due to the diabetes on 2016. Although it may seem serious, but healthcare in Malaysia is one of the best in its level. Malaysia has achieved impressive health gains for its population with a low-cost health care system that provides universal and comprehensives services, funded through general revenue, Malaysia Health System Review (2012).

Following this, health campaign from the related parties especially ministry of health and other organization needs to align with the recognition whereby each of the media needs to more interesting and interactive, so it will easier to delivering the information on health towards the public. As well, current trends of several medium is capable to be sync through the content of health campaign as it will make it more understandable and receivable by the target audience, especially in every level of age. For example, current printed advertising of health campaign needs to give new breath of the content and media itself, like cinemagraph technique where it gives interactivity element of moving image, attracting viewers with the highlighted parts of moving element in the media. This study is highlighted on the function of the cinemagraph technique in hoping to be the next media replacement or enhancement of current still image, specifically on the health campaign, align with the objective of this study whereby it is on developing of new concept of health campaign with the use of cinemagraph technique.

REFERENCES

- [1] Bai, J., Agarwala, A., Agrawala, M., & Ramamoorthi, R. (2013). Automatic Cinemagraph Portraits, 32(4).
- [2] Baecker, D. (2013). Systemic theories of communication. *en Cobley, P & Schulz, PJ. (eds). Theories and Models of Communication. De Gruyter: Germany*, 85-100.
- [3] Council, A. (2004). Public service advertising that changed a nation. *New York: Author. Retrieved August, 27, 2006.*
- [4] Dans, A., Ng, N., Varghese, C., Tai, E. S., Firestone, R., & Bonita, R. (2011). Health in Southeast Asia 4 The rise of chronic non-communicable diseases in southeast Asia: time for action. *The Lancet*, 377(9766), 680–689. [https://doi.org/10.1016/S0140-6736\(10\)61506-1](https://doi.org/10.1016/S0140-6736(10)61506-1)
- [5] Hadi, A. S., Yesuselvi, M., Rezal, H. M., Julinawati, S., Yusoff, M., & Afifi, H. (2017). Health Related Campaigns in Social Media and Its Practical Aspects for Youths in Malaysia, (January), 6–12. <https://doi.org/10.1051/shsconf/20173300061>
- [6] HSCIC. (1979). Statistics on smoking. *Canadian Family Physician*, 25(October), 1159.



- <https://doi.org/10.1038/1811181a0>
- [7] Islamia, J. M. (2016). Cinemagraph: A Fusion of Still Images and Motion Video for Science Communication in a New Media Convergent Ecosystem, *4*, 21–27
 - [8] Loh, C. (2011). Automatic Cinemagraphs, *2*(2), 3–6. Retrieved from <https://pdfs.semanticscholar.org/0d5c/0f8c47262a3801e44a5520b5f58d4b2ca745.pdf>
 - [9] Oh, T., Joo, K., Joshi, N., Wang, B., So, I., Sing, K., & Kang, B. (n.d.). Personalized Cinemagraphs using Semantic Understanding and Collaborative Learning, (10048320).
 - [10] Oh, T. H., Joo, K., Joshi, N., Wang, B., So Kweon, I., & Bing Kang, S. (2017). Personalized cinemagraphs using semantic understanding and collaborative learning. In *Proceedings of the IEEE International Conference on Computer Vision* (pp. 5160–5169).
 - [11] On, R., Status, S., & Malaysian, A. (2015). National Health & Morbidity Survey 2015 - Report on Smoking Status Among Malaysian Adults. *Ministry of Health Malaysia*.
 - [12] Pilarczyk, J. (2017). Emotional content of an image attracts attention more than visually salient features in various signal-to-noise ratio conditions, *14*(2014), 1–19. <https://doi.org/10.1167/14.12.4.doi>
 - [13] Ritchie, H., & Roser, M. (2018). Alcohol consumption. *Our World in Data*.
 - [14] Samsudin, F. R., Tajuddin, M., Ridzuan, N., & Nik, B. (n.d.). CINEMAGRAPH; AS A TOOL IN ENHANCING PUBLIC SERVICE ANNOUNCEMENT (SA) TOWARDS SMOKING HABIT ISSUE, 3–4.
 - [15] Saran, R., Robinson, B., Abbott, K. C., Agodoa, L. Y., Albertus, P., Ayanian, J., ... & Cope, E. (2017). US renal data system 2016 annual data report: epidemiology of kidney disease in the United States. *American journal of kidney diseases*, *69*(3), A7-A8.
 - [16] Sarunya Benjakul, Mondha Kengganpanich, Lakkhana Termsirikulchai, Tharadol Kengganpanich, Nuttapon Theskeyan, Hataichanok Puckcharern, Chitrlada Touchchai, A. L. (2011). *Global Adult Tobacco Survey: Thailand Report 2011*. Nonthaburi, Thailand: World Health Organization.
 - [17] Shannon, C. E. (1948). A Mathematical Theory of Communication. *Bell System Technical Journal*, *27*(4), 623–656. <https://doi.org/10.1002/j.1538-7305.1948.tb00917.x>
 - [18] World Health Organization. (2012). Malaysia health system review.
 - [19] Yusoff, A. F., Mustafa, A. N., Kaur, G. K., Omar, M. A., Vos, T., Rao, V. P. C., & Begg, S. (2005). Malaysian burden of disease and injury study.
 - [20] World Health Organization. (2019). World health statistics 2019: monitoring health for the SDGs, sustainable development goals.



Ending Racial Tension by Eliminating the Shadow of Discrimination in the Minds of Malaysians

***Iman Mi'shyra Mohsin, Nisa Qistina Badrul Hisham, Najwa Azizun**

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus
Dengkil, 43800, Dengkil, Selangor, Malaysia

*E-mail: shyramohsin@gmail.com

ABSTRACT

A commonality between South Africa and Malaysia is that both were, or are, heavily dependent on their respective social contracts. Specifically, the apartheid law for South Africa in the past and the social contract of Malaysia that was formed nearing Malaysia's independence. These social contracts are mediums that either enforce or curb the differences of the races in both States. The objective of this research is to understand the conceptual framework and impact of these contracts to the States whether positive or negative in various aspects, to amplify the need for awareness in the society to appreciate the diverse races and finally, to form tolerance among the races in Malaysia as a result of accurate understanding of its social contract. We employed the method of doctrinal research by looking deep into the legal principles of social contracts and how it operates in the States. We referred to cases, statutes and opinions from various perspectives that relate to varying racial issues. Among our major findings from this research includes realizing that it is prominent that the law of Malaysia allows no room for negative discrimination between races, but it has become a norm in the society to discriminate instead. To put into perspective, while the social contract of Malaysia highlights Malay Privilege to a certain degree, it also protects the rights and importance of the non-Bumiputras. However, racial tension in Malaysia has been increasing, especially in recent years, mostly due to political power play and the innate fear of being overpowered by other races in one's society. To conclude, this research will not only be adding to the body of knowledge, but it will also raise awareness to the racial issues now happening in Malaysia, serving a way to form equal understanding among Malaysia's diverse community by promoting its diversity.

Keywords: Racial tension; discrimination; Malay privilege; Apartheid; social contract

1. INTRODUCTION

"In a racist society, it is not enough to be a non-racist, we must be anti-racist."

The above quote by Angela Y. Davis has the ability to overall bind this article together. Racism is defined as a global hierarchy of superiority and inferiority along the line of the human that has been politically, culturally, and economically produced and reproduced for centuries by institutions surrounding its particular system. [1] When speaking of it, the norm is that the society is performing racism. However, it is capable of being legally enforced, primarily through the passing of laws that are discriminatory towards a specified race or ethnicity. This article will highlight legal racial discrimination which occurred due to the existence of social contracts, specifically the apartheid laws in South Africa during the 1940s and Malaysia's current social contract.



An article written in 2015 has delved into the theoretical framework and its negative impact socially of apartheid in South Africa. [2] Another article emphasises on how ethnicity issues in Malaysia can negatively influence the State, causing an economic downturn, threaten national security and put its image at risk. [3] In addition to that, a different article speaks of how the existence of a supremacy in Malaysia's diverse ethnicities has resulted in an implication that those who are not the Bumiputras are secondary citizens. [4] This article will highlight how Malaysia's social contract has an impact akin to apartheid, albeit more subtly. Its objective is to understand the conceptual framework and nature of discrimination of the two social contracts, to amplify the need for awareness in Malaysian society to appreciate the diverse ethnicities instead of condemning it and finally, to form tolerance among the ethnicities in Malaysia as a result of an accurate understanding of its social contract. To accomplish these objectives, the methodology of doctrinal research is used by deeply immersing in the legal principles of social contracts and how they operate and referring to relevant cases, statutes, and opinions.

2. FRAME OF REFERENCE

Apartheid

In its linguistic perspective, "apartheid" is an African's word for "separation". In its legal perspective, however, it is the term given to the racial-social ideology in South Africa during the 20th century, where new laws were brought to life which ultimately seeks racial segregation. [5]

In 1948, apartheid began in South Africa after the Afrikaner National Party (NP) came into power once they obtained a strong majority. Apartheid laws were enacted, leading to racial discrimination being institutionalised. Countless laws and provisions were passed to establish a government that was structured heavily around apartheid. In the establishment of the government, the NP's main objective was to maintain White domination while extending the severity of racial separation in South Africa as the Black South Africans (Natives) receive the worst discrimination. [6]

The legislations revolve itself primarily around the separation of races to ensure that the White race reigns superior. For example, the three most important blocks of legislations were the Race Classification Act which classified South Africans into four categories (Native, Coloured, Asian or White), Mixed Marriages Act which was an act that prohibits interracial marriages, and Group Areas Act which forced certain races to live in designated areas. [7] This is because these legislations were the main causes of racial separation in South Africa. These laws forced White supremacy and racial discrimination towards the rest to become a norm, as well as ensured the continuation of it.

Population of South Africa during Apartheid

Population statistics at the time was full of flaws. The State had ceased to include data from the four "sovereign" homelands once the government no longer considered the territories to be a part of South Africa, thus they did not consider the people of those homelands to be South Africans even though its majority proceeded to work and reside in South Africa. [8]

**Table 1:** Population of South Africa During Apartheid

Group	Population (1,000s)	Percentage of Total
Whites	4,961	14.8%
Natives	24,901	74.1%
Coloureds	2,881	8.6%
Asians	878	2.6%
Total	33,621	100.0%

Malaysia's Social Contract

In Malaysia, the term “social contract” has an unusual and unique meaning. It refers to the compromises made between the Malays, Chinese and Indians and their bargains with the Malay rulers and the British to both gain independence and forms a democratic, federal, non-theocratic government based on the constitutional monarchy. [9] The formation of this social contract is a sign of maturity and capability for the different ethnicities to govern a State independently with peace.

This social contract is legally enforced through article 153 of the Federal Constitution of Malaysia (FC) whereby it specifies the “reservation of quotas in respect of services, permits, etc., for Malays and natives of any of the states of Sabah and Sarawak”. [10]

Malaysia's social contract emphasises the special position of the natives of Malaysia which are the Malays and the natives of Sabah and Sarawak. They are dubbed as “Bumiputras” or “Bumis”. The reason for this is because historically, the Bumis were separated from the other ethnicities, neglected by the British who colonised their land, and given discriminatory treatment. They acted as the backbone of the nation, yet they were barely rewarded. Education was also difficult due to the existence of vernacular schools. [11] Therefore, their special position was acknowledged to aid in their development. Nevertheless, this acknowledgement of the special position of the Bumis did not mean that the other ethnicities would be discriminated. The social contract includes the granting of citizenship to the Chinese and Indians, whilst protecting their legitimate rights.

Current Population of Malaysia

With a population of 32.6 million people, 3.2 million are foreigners while the rest are locals. The population of Malaysians is categorised by four categories, the “Bumis”, Chinese, Indian and Others. [12]

Percentage Distribution of the Population by Ethnic Group, Malaysia, 2019

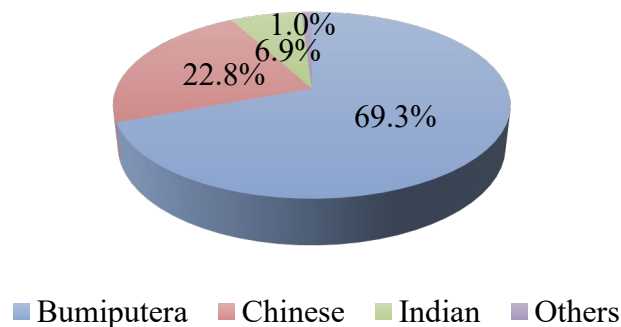


Figure 1: Population of Malaysia

Grounds for Comparison

The basis for why we have decided to compare apartheid and Malaysia's social contract is because apartheid was an event where racial discrimination became legally enforced gradually until it eventually went to extreme levels. The rationale for why it was enforced is similar to Malaysia's social contract, which was to ensure the dominance of a certain race above others. The ending results of apartheid should be taken as a lesson by Malaysia before racial discrimination escalates tremendously.

Differences between Apartheid and Malaysia's Social Contract

Although apartheid and Malaysia's social contract both legalised racial discrimination, there is a key difference in the foundation and the enforcement of the discrimination which is the nature of the discrimination it enforces.

Apartheid blatantly enforced negative discrimination where it presses discrimination onto the other races that were not White, especially the Natives. By way of illustration, the Native Trust and Land Act (1936, 1954) barred the Natives from residing in "White areas", except certain domestic servants. [7] Meanwhile, Malaysia's social contract is enforcing positive discrimination. It favours the Natives as they have been victims of negative discrimination in the past, protecting them instead of discriminating against the others. Article 153(1) of the FC goes so far as to state, "It shall be the responsibility of the Yang di-Pertuan Agong to safeguard... the legitimate interests of other communities per the provisions of this Article." which is then further recapitulated in clause 7 of the article, "Nothing in this Article shall operate to deprive or authorise the deprivation of any person of any right, privilege, permit or license..." [10]

Furthermore, for apartheid, racial discrimination was enforced by the minority, which was the White race, while in Malaysia, it was enforced by the majority being the Malays, although it was made for the same purpose, which was to establish the dominance of a particular race and to protect the race from discrimination of others.



3. RESEARCH FINDINGS

Misconceptions of Malaysia's Social Contract by Society

Generally, the nature of Malaysia's social contract is of positive discrimination, but the Malaysian society has perceived it incorrectly, consequently causing prejudice which leads to negative discrimination among the different ethnicities in Malaysia. This is because the society has understood article 153's term of "special position of the Malays" as a privilege instead of the protection of the Malays' rights, hence the frequently used term "Malay privilege".

The attachment of the word "privilege" to the social contract instilled a sense of superiority in the Malays, and discrimination in the others. The reason for this is due to "privilege" essentially meaning undeserved advantages, given to an individual due to a membership, or assumed membership, in a dominant group. [13] In the context of the social contract, it is seen as legally enforcing Malay supremacy, thus negatively discriminating the ethnicities that are not entitled to the privilege.

The legal enforcement of the supremacy of another race is seen negatively as the enforcement of White supremacy, such as historically in apartheid, is often associated. Malay supremacy is becoming akin to White supremacy. This can be demonstrated by the demands that were made in the Malay Dignity Congress that are much alike to the White supremacists' agenda. One of the demands is so only Malays are allowed to fill main and top positions within the government. [14]

In our opinion, this inaccurate view of the social contract, as well as extreme advocates of Malay supremacy, is the root cause of racial tension and discrimination in Malaysian society.

4. RECOMMENDATION FOR EXPERIMENTATION

Increase Education on Racial Discrimination

One of the main causes of racial discrimination to occur is due to the reason that from a young age, Malaysian students, specifically in government schools, are not taught regarding racial discrimination all-around. History books favour the Malays, usually only highlighting the struggles of the Malays without acknowledging what the other races have gone through such as how the majority of the 600 casualties during the 13 May 1969 incident were Chinese. [15] Not only that, but as Malaysia only prioritises the Malays' independence, it also has no commemorative celebration for when the Japanese left Malaysia, leaving the Chinese ethnicity to remember this day alone. [16] This may be since most victims of the Japanese at the time were Chinese, while the Malays sided with the Japanese as they believed in the propaganda the Japanese were spreading. [11] This obvious neglect and lack of care for another ethnicity in Malaysia, although they are also Malaysians, must be put to an end as it will only continue to increase ethnic prejudice and discrimination.

Not only should the history of the past ethnicities' struggles be acknowledged and taught to the Malaysian students, but they must also be educated on other forms of racial discrimination globally. Confining Malaysian students to learn only regarding Malaysia will result in ignorant Malaysians who fail to understand the importance of globalisation for Malaysia to develop as a country. At the very least, the students should be taught about racial discrimination that has happened internationally, such as apartheid and the White supremacy agenda in the Western



countries. This is so they will understand how crucial and detrimental racial discrimination can be. As an example, students should be taught of the cases about racial discrimination, such as the shooting of Breonna Taylor. She was shot eight times and killed immediately by police who forced entry into her home. Even though there is evidence of this, the police report regarding her killing was nearly blank. [17]

Determining Racism in Malaysia

To curb racism, it is first crucial to determine racism in the community. Unfortunately, racism has become overly ingrained in the Malaysian society that it is difficult for Malaysians to recognise racist conducting racism. One obvious racist behaviour that Malaysians are often guilty of is the use of racial slurs. An example is the use of the word “jakun” by Malaysians. Historically, Jakun people are known as Orang Ulu. However, Malaysians have come to use the term as an insult for when someone is overly excited or unsophisticated because they view the Orang Ulu as primitive and backwards. [18]

Moreover, in this digital age, racism is especially rampant in social media. For instance, on 27th November 2018, a report was lodged regarding a provocative video which involved, allegedly, a Malay man provoking the Malays to fight back against the Chinese and Indians in Malaysia. The man in question had also used racial slurs and abusive languages towards the Chinese and Indian communities, demanding them to return to China and India, respectively. [19] This kind of behaviour, we must acknowledge, does not only come in the form of one man. Many Malaysians exhibit these mannerisms, albeit more subtly, which is why it is the kind that can provoke others in the first place.

End Racial Politics in Malaysia

Malaysia is the only State where it practices affirmative action for the majority of its people, aside from South Africa which experienced tremendous racial discrimination during the period of apartheid. This led to Malaysia heavily practising racial politics. However, politics does not need to be about race or ethnicity. [20]

In our opinion, we believe that Malaysians have become accustomed to the ruling of Barisan Nasional (BN) as the government for many decades. Malays, in particular, are in favour of BN's ruling as it prioritises them and the administration is also completely Malay. As BN has ruled for 60 years, the victory of Pakatan Harapan (PH) was not fully accepted, primarily by the Malays. This is evident in how only 17% of Malays had voted for PH in the previous general election (GE-14) in 2018. Majority of respondents do not believe that PH is serious about upholding the “Malay agenda”. [21] This proves how Malaysian politics is heavy on racial grounds. The people have more care for selfishly upholding their own race and their right-wing conservative ideology than to allow Malaysia to become progressive as racial politics will only continue to stunt the development of the State. As further evidence, Tommy Thomas, an Indian who was elected as attorney general resigned after being attacked based on race. [20] Not to mention, the lack of proper explanation for the abandonment of the ratification of the International Convention on the Elimination of all forms of Racial Discrimination after certain segments of the Malay community expressed unacceptance to it as it can negatively impact Malay supremacy implicitly illustrates how politics in Malaysia is more concerned regarding racial standings compared to the overall State's politics. [22]



This behaviour and mindset to only uphold a certain race rather than the progression of a country in Malaysian politics will make it difficult for Malaysia to achieve its objective of becoming a developed country in the near future. Politics need not be about race, rather it should be about a fair ruler who is capable of bringing Malaysia to the right direction for all.

5. CONCLUSION

To conclude, although there is a significant difference in the enforcement of apartheid in South Africa and Malaysia's social contract, it does not make the Malaysian society immune to harbouring racial or ethnic tension, prejudice, and discrimination. For Malaysia, racism is not explicit in the way it was in South Africa such as the laws which prohibit any kind of equal standing among the different races in all aspects. Instead, it is subtle, showing in the everyday speeches of Malaysians and the deeply rooted right-wing conservative mindset which does not approve of other races being seen as equal in the governing of Malaysia. Regardless, based off of recent years, this subtle racism is capable of evolving into something horrendous, possibly to the extent of xenophobic violence. Theoretically, if the mindset of overpowering another race is abolished from the minds of Malaysians through proper education and enforcement of the law, Malaysia would be able to develop more and curb the racial tension and prejudice that is currently increasing.

However, this article lacks proper experimentation of the theories and recommendations. Further study with experimentation is required to be able to determine whether the solutions proposed will be able to curb racism in Malaysia or not, however, we suggest it to be long-term research as racism is something deeply ingrained in the minds of the Malaysian society and will take a lengthy period of time for the results to be materialised.

ACKNOWLEDGEMENT

1. Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor
2. Contemporary Global & Legal Issue Exhibition (COGLIEX 2020)

REFERENCE

- [1] Grosfoguel, R. (2016). What is Racism? *Journal of World-Systems Research*, 22(1), 9–15. doi: 10.5195/jwsr.2016.609
- [2] Mhlauli, M. B., Salani, E., & Mokotedi, R. (2015). Understanding Apartheid in South Africa through the Racial Contract. *International Journal of Asian Social Science*, 5(4), 203–209. doi: 10.18488/journal.1/2015.5.4/1.4.203.209
- [3] Shamsuddin, K. A., Ong, J. H. L., & Ridzuan, A. A. (2015). Malaysia: Ethnic Issues and National Security. *International Journal of Humanities and Social Science*, 5 (No.9), 136–143. Retrieved from https://www.researchgate.net/publication/286440658_Malaysia_Ethnic_Issues_and_National_Security/
- [4] Sofjan, D. (2009). The Malaysian Dilemma. *ASIAN ALTERNATIVES FOR A SUSTAINABLE WORLD: Transborder Engagements in Knowledge Formation*, 179–187. Retrieved from https://www.researchgate.net/publication/304332602_The_Malaysian_Dilemma/
- [5] Thompsell, A. (2020, February 11). What Was Apartheid in South Africa? From ThoughtCo.: <https://www.thoughtco.com/apartheid-definition-4140415>
- [6] (n.d.). Retrieved June 15, 2020, from <http://www-cs->



- students.stanford.edu/~cale/cs201/apartheid.hist.html/
- [7] Landis, E. S. (1957). Apartheid Legislation. *Africa Today*, Vol. 4, No. 6, South Africa: Alternatives to Disaster?, 45-48.
 - [8] O'Malley, P. (n.d.). South Africa's Transition from Apartheid to Democracy". From the Heart of Hope: <https://omalley.nelsonmandela.org/>
 - [9] Faruqi, S. S. (2008, October 29). Understanding the social contract. From The Star Newspaper: <https://www.thestar.com.my/opinion/letters/2008/10/29/understanding-the-social-contract#>
 - [10] *Malayan Law Journal*. (2001). Federal Constitution. Kuala Lumpur.
 - [11] Adam, R., Samuri, A. H., Yacob, S. P., & Fadzil, M. (n.d.). Chapter 2, Chapter 4 and Chapter 5. In *Buku Teks Sejarah Tingkatan 5*. Dewan Bahasa Dan Pustaka.
 - [12] Mahidin, M. U. (n.d.). Current Population Estimates, Malaysia, 2018-2019. Retrieved June 1, 2020, from <https://www.dosm.gov.my/>
 - [13] Special Task Group (STG), E. P. (2011). Society of Counseling Psychology. Retrieved from Exploring Privilege: <https://www.div17.org/resources/social-justice/resources/exploring-privilege/>
 - [14] Nazari, T. (2019, October 7). Malay Dignity Congress: here's what they demanded. Retrieved June 1, 2020, from <https://www.therakyatpost.com/2019/10/07/malay-dignity-congress-heres-what-they-demanded/>
 - [15] Sukumaran, T. (2019, May 14). Malaysia's May 13 racial riots: 50 years on, they couldn't happen again, could they? Retrieved June 1, 2020, from <https://www.scmp.com/week-asia/society/article/3009804/malaysias-may-13-racial-riots-50-years-they-couldnt-happen-again>
 - [16] Maelzer, R. (2019, August 15). Chinese Malaysians strive to keep memories of Japanese occupation alive. Retrieved June 1, 2020, from <https://news.cgtn.com/news/2019-08-15/Chinese-Malaysians-keep-memories-of-Japanese-occupation-alive-JbpsinQzXq/index.html>
 - [17] Stieb, M. (2020, June 11). The Police Report for the Killing of Breonna Taylor Is Almost Entirely Blank. *New York Magazine*. Retrieved from <https://nymag.com/intelligencer/2020/06/police-report-for-killing-of-breonna-taylor-is-nearly-blank.html>
 - [18] Christian, L. L. (2020, April 17). Do You Know That These 6 Racial Slurs We Malaysians Use Are Actually NOT OKAY? Retrieved June 1, 2020, from <https://worldofbuzz.com/do-you-know-that-these-6-racial-slurs-we-malaysians-use-are-actually-not-okay/>
 - [19] Pusat Komus, M. (2019). *Malaysia Racial Discrimination Report 2018*. Kuala Lumpur: Pusat Komus Malaysia.
 - [20] Nair, C. (2020, March 4). Malaysia's 'Malay First' Malaise. From The Diplomat: <https://thediplomat.com/2020/03/malaysias-malay-first-malaise/>
 - [21] Survey shows 60pct of Malays unhappy with Harapan gov't. (2019, January 31). Retrieved June 1, 2020, from <https://www.malaysiakini.com/news/462367/>
 - [22] Anuar, K. K. (2019, January 7). Analysing Malaysia's Refusal to Ratify the ICERD. Retrieved June 1, 2020, from <http://ohrh.law.ox.ac.uk/analysing-malaysias-refusal-to-ratify-the-icerd/>



Urban Sprawl in Malaysia: A Review of Controlling Methods and Policies

^{*1,2}Namirah Mohd Akahsah, ²Raihaana Azmi, ²Nur Shazleen Natasha Abdul Mu'izz,
²Nur Aisyah Izzati Zulkupli, ²Shaun Saega Agas, ²Wildan Firdaus

¹Faculty of Law, Universiti Teknologi MARA

²Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: namirah9532@uitm.edu.my

ABSTRACT

Urban sprawl is a widely known phenomenon, in which it can be defined as growth in urban areas that happen without much planning and development. The environment and socio-economic impact of urban sprawl have been the driving force in the creation of policies and methods to control urbanisation of cities. Many city planners and researchers had come out with their policy and ways in mitigating this rising issue of urban sprawl. The common response would be a compact city, smart growth, new urbanism, and many more. However, a certain policy did focus more on certain areas that cause a loss in another, which attracts criticism. Due to this, more and more methods are introduced to find the best way in achieving sustainable cities. The purpose of this paper is to review the methods and policies that were brought up to minimize urban sprawl by drawing the possibilities and criticism of the said method and to recommend the best method that can apply in Malaysia's cities. To achieve these objectives, the authors used analytical research through various literature on the issue of urban sprawl. It is anticipated that this research will provide the best solution in mitigating urban sprawl to prevent this phenomenon from becoming worse.

Keywords: Urban sprawl; Controlling Methods and policy; Green Compact City; Malaysia

1. INTRODUCTION

Urban sprawl is defined as the urbanization territorial process that denotes unforced urban expansion along with city population growth [1]. Urban sprawl can be described as non-stop exurban growth at the expense of existing or street-built clusters [1]. The urban sprawl phenomenon has occurred since the mid-twentieth century, with many indicators, such as low-density neighbourhood and commercial projects, over-reliance on private car, non-existence of public transport, traffic jams, contamination of the atmosphere and the lack of a sense of connection among the local population [2]. In terms of land use, urban sprawl is associated with single-family homes, extended transport infrastructures, and vast freestanding commercial and industrial properties [1]. The urban sprawl in Kuala Lumpur (KL), the pattern of widespread growth invades the area of Selangor State cities surrounding the KL district, and continues to happen [2]. Urban sprawl properties as host other societal issues. The expansion trend of KL resulted in it being named a "mini-Los Angeles". Kuala Lumpur is facing challenges today that pose a threat to the dream of the Malaysian government to make Kuala Lumpur a world-class city by 2020 [1]. It can be rightly pointed out at the cost of careful planning, the uncontrolled buildout of available property.



This research also concluded as to the factors leading to the phenomenon. The factors are the attraction of affordable open land outside the city, progress in transportation, easily obtainable funds to buy property, the upsurge of the real estate developers, housing mass construction, and the ever-emerging ideal of the single-family home as the American dream led to the emergence of urban sprawl [3]. In addition, the uncontrolled land expansion, the nature-inspired preference of single-family homes and a way of life seeking more space per household and car usage are also associated with urban sprawl [1]. The desire for a pleasant and ideal living was instrumental in encouraging developers to create more commercial and residential properties without proper planning.

Furthermore, the key factors contributing to the sprawl include high urban land prices, availability of comparatively cheap land on the outskirts of KL city, the high quality of the natural environment, affordable housing prices, and lower living cost [2]. In short, because of the ever-increasing demand for the realization of the American dream, the urban sprawl phenomenon has been intensified; that anyone can achieve their version of ideal living in a society where upward mobility is attainable for all.

The urban sprawl trend brings many social and environmental impediments to the community. Urban sprawl leads to higher energy use and longer time taken for travels and increased pollution due to carbon emissions from automobiles [2]. A trend can be seen in the populace when choosing to settle in a residential area. While rising real income caused suburbanization of these cities, it is also caused by frequent use of cars and trucks, the desire of society to live in relatively new and low-density settlements, economic advantages of homeownership, and strongly entrenched tendencies for people to segregate themselves socio-economically and racially by neighbourhoods [4]. It is surely plausible to conclude that urban sprawl was detrimental to the conditions of living not only in the city but also spilling over to the suburbs nearby. It has contributed towards the deterioration of the nature of man himself as all other aspects of mental, physical, and spiritual health are directly affected by the deterioration of his surroundings.

In addressing the issues that emerge from urban sprawl, city planners and researchers have come out with different policies and methods in controlling it. The most well-known policy is compact development. Yet, depending solely on compact development may not be enough. A broader approach to increase the chances of reducing urban sprawl is required. Instead of concentrating on the concepts of only one method, for the continued effectiveness of mitigation, it is important to compare or even emerge those policies. The purpose of this paper is to review and analyse how compact cities manage urban sprawl and the possibilities of emerging Compact cities with a Green city in the hope of enhancing sustainability. This paper will also include Malaysia's best possible solutions to alleviate urban sprawl. Analytical research is employed in this paper by reviewing established research in this field and adding more critical input to the best solution.

2. CONTROLLING URBAN SPRAWL

Compact Development: A Response to Urban Sprawl

One alternative to tackle urban sprawl is through implementing the compact city model. The compact city is mainly characterized by high density and mixed land use with no sprawl through growth expansion by infilling, demolition, reconstruction, and so on. It is important to note that the idea of a compact city, was common in the early 1990s as a result of the near clinical



separation of land uses due to suburban sprawl which has increased the need for mobility, causing a rise in the use of cars, which in turn exacerbated high levels of air and noise pollution, as well as decaying city centres. There is a collective realization that moving the development to suburban areas is not going to solve the problem, but only perpetuate the problem. As land is becoming more and more of a precious commodity in this day, added with the fact that it is exhaustive only serves to remind developers that unless urban sprawl is rightly addressed, it will also be a problem in the suburbs once the construction sets in. Compact development is not only about densifying cities but it is also about subsequently making the city sustainable [2]. A high-density may become unfavourable, so a balance is needed to avoid other problems down the line.

Through success stories from many cities, it is revealed that high-density land use planning can sustain low travel requirements in higher transit shares and urban quality, but it has several proficiencies built into it [4]. Compact structures provide benefits consisting of less land utilization, less expensive foundation and utility expenses, and asset protection [3]. Besides, it promotes spatial diversity, social integration, sustainable modes of commute (e.g., transit-rich interconnected nodes), high demands of good environmental and urban management systems, energy-efficient buildings, proximity to local squares, extra space for bikes and pedestrians, and green areas. The compact city is more energy-efficient and less polluting because people live near workplaces, shops, and leisure and service facilities, that allow them to walk, bike, or take transit. This is in turn anticipated a better quality of life by encouraging more social interaction, a sense of community, and cultural vitality [5].

High-density urban planning will improve public transport and reduce land use by road infrastructure. It also indicated that hybrid land use development, compact city, and smart growth should yield positive performance. Mixed land use would minimize distances from homes to various locations, allowing residents to walk and ride bicycles or use public transport. Such transport benefits can be important, but they are not always apparent [4]. Also, compact cities, designed with precision, can yield successful outcomes. First, compact cities are asserted to be even more effective for more sustainable modes of transport. Second, compact cities are seen as sustainable use of land. By that sprawl, the land in the countryside is conserved and land in towns can be recycled for development. Third, in social terms, compactness and mixed uses are related to integration, social cohesion, and cultural growth. It is also claimed that this is an egalitarian process as it provides strong accessibility. Fourth, compact cities are considered to be economically feasible as services, such as roads and street lighting, can be provided cost-effectively per capita [5].

Furthermore, it is also worth noting smart growth as another approach used in the sense of compact development. While the concept of smart cities differs, it implies development that serves the economy, the community, and the environment. This moves the parameters of the policy discussion away from the conventional-issue of growth/no growth to whether and when future projects will be accommodated according to the Environmental Protection Agency in 2004 [6]. The ideals of smart growth are very related to the compact city, with a common goal: growing density and compactness. Smart growth approaches are mainly targeted at encouraging compact

The principles in smart growth are all similar to a compact city, with a similar goal: increasing density and compactness. Smart growth strategies are predominantly aimed at promoting compact development and high density because density provides service-providing economies, enhances availability to retail and other services, and boosts the community spirit



[7]. Firstly, smart growth leads to the formation of compact developments by characterizing the limits of urban areas which restrict land availability for new developments [7]. Smart growth also lets cities erase the typical focus from specific land uses permitted in an area to intensity of land use in that area, encouraging more mixed land use.

Increasing Sustainability

The best definition of sustainable development can be referred from United Nations World Commission on Environment and Development (WCED) as “development that meets the needs of the today’s generation without compromising the ability of future generations to meet their own needs” [6]. Although compact development is effective in mitigating urban sprawl, it is impossible to say that this is the way to achieve sustainability. Making community members more compact and denser requires proper examination and adjustment to balance potential negative effects; higher density is beneficial in appropriate locations, but not always in each case [8]. The complex interaction between higher density and increased risk of heat island effect raises the need for cooling energy. By increasing greenery and vegetation may be the solution to deplete the negative urban effects [8].

Nevertheless, the low proportion of urban green spaces is a major constraint to compact cities. The advantages of green areas should be provided where there is demand, especially since the spatially restricted effect of green spaces. However, the provision of ecosystem services is lower than their demand, especially in compact cities. The following section will firstly clarify the concept of green urbanism or green city and secondly, how green cities can be interjected into compact cities.

Green City

"Green City" is defined as an urban area that moves towards long-term environmental conservation, social inclusion, and economic sustainability. In this research, several meanings of Green City were analysed using various literature sources. Such definitions were analysed to define identities within them and to provide a comprehensive definition. Firstly, green cities are described as environmentally friendly communities. The greening of cities requires some, or preferably all, of the following: (i) management of pathogens and their health burden; (ii) elimination of chemical and physical hazards; (iii) development of high-quality urban environments for all; (iv) reduction of environmental transfers to areas outside the city and (v) ensure progress towards sustainable use [9]. The idea of 'Green City' or 'Green Development' is not new. Previously part of the term 'sustainable growth,' it seeks to incorporate natural, social, and economic aspects into the processes of urban growth. A 'Green City' or 'Green Development' is an extension of this term, but it is understood within the context of the government's activities, and how these actions lead to a green and sustainable community or urban area. Green Development considers the overall management and progress of water, air, and land quality and security in urban areas; their connection with the hinterland and broader systems; and the benefits gained from both the climate and the people [9].

Green infrastructure (GI) is a network of natural and semi-natural areas, characteristics, and spaces in rural and urban, soil, freshwater, coastal and marine areas [10]. GI can be enhanced by strategic and coordinated efforts that focus on monitoring, preserving, upgrading, and linking existing areas and functionality, as well as developing new uses and features. The definition has demonstrated the need to achieve the desired ecosystem services by enhancing the network of green spaces that are capable of ensuring effective living, nature conservation,

and promoting biodiversity interactions that would help the human community through the provision of ecosystem services. A conscious effort is therefore needed to restore and conserve existing ecosystems. Other than that, GI has proven to provide a variety of services to urban communities and aims to reduce the impact of physical development to achieve green growth [10].

In addition, GI facilities promote social cohesion through recreation services by providing pleasant open spaces to attract visitors and recommending a place for friends and family, as well as a well-maintained, safe and secure community centre within walking distance to promote patronage [10]. When designed with various facilities, Green Park promotes higher adult visits as a GI attribute. Green open spaces are often part of the GI features that can serve as a meeting point for urban community' recreation places that improve the health status of residents. This work is therefore intended to be a systematic study of GI's sustainable urban planning policies. The introduction of GI in Malaysian urban areas will, therefore, promote sustainability by improving the efficiency of urban areas and as a result, increasing the economic value of landed property and fostering social stability, which is a key stimulus for sustainable urban growth.

Green Compact City

This section aims to develop practical urban greening methods explicitly for the smart built environment of compact cities, as this approach connects the principles of the compact city and green development and suggest that they reinforce each other.

First, smart density and green infrastructure integration [1]. Density can be measured by activity intensity and related built-up areas, and functional or physical densities. In specific, the small density of commercial or industrial and residential areas. Green infrastructure concept, therefore, suggests a functional or physical integration of green spaces into green infrastructure planning. For example, green infrastructure can be integrated through green roofs to reduce surface water runoff in highly sealed commercial areas, sky gardens in residential areas to compensate for a lack of green spaces at ground level, street trees to reduce carbon dioxide emissions or small gardens such as schools to support biodiversity as part of the green network.

Second, the smart attractiveness and sustainability of compact and green cities [1]. In terms of the affordability of housing and its physical environment, smart compact cities will protect high-quality, built-up land. In smart green cities, the high standard of sustainable green spaces in the developed area will be granted priority. Concerning compact cities, the argument goes that high-quality green infrastructure can compensate for the lack of green quantitatively. Quality is defined by the types of vegetation and spatial trends that affect the delivery of ecosystem services such as microclimatic effects [1]. To consider the required multi-scale planning of green infrastructure, the design of green spaces for compact and green cities should contemplate urban green spaces at local, city and district, regional, and national levels [1].

Third, the smart proximity of compact and green cities [1]. Proximity describes the distance within a specific metropolitan environment between the various forms of land use and their related activities. As stated in this review, proximity to green spaces is the difference between residential areas and different types of urban green spaces. Short distances between urban green areas and residences will optimize the advantages of the urban green environment, such as promoting recreation [1]. The supply of recreation areas, which should be a reasonable pedestrian distance and accessible to the public, is of critical significance for the quality of life

in cities in general and in compact cities in particular.

Finally, smart concentration and connectivity of compact and green cities [1]. Instead of being scattered, high concentration urban areas are set up in fewer places within the city's administrative limits. To counter urban sprawl, smart planning needs a large concentration of built-up property, residents, services, and employment, reflected in the concentration of commercial and industrial, residential, and transport areas as the main built-up types in urban infrastructure. The allocation of green spaces is also of interest to smart green cities. The concentration of built-up land should result in an even distribution of green spaces that are interconnected at different scales to preserve biodiversity or provide recreational areas close to residents within this study [1]. The connectivity between different ecosystem components may be realised physically or functionally, through ecological networks, green belts, small habitat stepping-stone networks, blue-green corridors, and patchwork.

Towards Sustainable Cities in Malaysia

The concept of compact development is not foreign to cities in Malaysia, particularly in major cities or towns such as Kuala Lumpur and Kajang. Though studies have been undertaken on the introduction of compact development in these cities in 2009, a review on these studies is also required to ensure consistency of efforts to render Malaysia as sustainable and liveable as possible.

As the manufacturing sector of the economy in Malaysia is growing, the core of urban areas is becoming a hub of work opportunities for citizens from across the country. However, despite expectations that many people would move to the city centre, its suburban areas grow rapidly instead of migration [11]. Out-migration led Kuala Lumpur to act mainly as a jobs and entertainment source. The reason behind this involves more manageable living costs and availability of public transportations such as the LRT and KTM commuter train services, which led citizens to move to places like Petaling Jaya or even farther away from Kuala Lumpur and Seremban.

The Kuala Lumpur Structure Plan 2020 emphasizes the optimal land use that is necessary for compact cities by enabling developers to redevelop the high-density residential area that is also inexpensive in deteriorating lands. Apart from that, mixed commercial and residential areas are widely developed to ensure sustainability. A clear illustration of this can be found in the Kuala Lumpur Sentral Project, which operates as residential, commercial, business areas as well as a public transportation hub to integrate transport networks into land use [12]. High rise buildings in this project have also helped to optimise land use for more sustainable urban management. Many developments are leaning towards mirroring the KL Sentral Project such as KL Gateway in Bangsar, which applies mixed commercial and residential areas.

While there are several vacant lands accessible in the central regions, owing to its proximity to the three major cities of Malaysia, Kajang city has seen numerous horizontal developments in the region in recent years. Compact development is more concentrated in the east and west of Kajang due to flood zones in the center of Kajang city despite the availability of public transport. The development of single land use is taking place in agriculture and industrial areas in Kajang. These types of land restrict the development of residential areas. This is likely that other infrastructure, including schools and industrial buildings, would not be built too. Whereas, mixed land use is more popular in commercial and residential areas, especially residential areas. One example is Saville at Kajang, where high-rise buildings function as residential and

commercial areas.

In view of 11th Malaysian Plan 2016-2020 (11MP), the country has made a great deal of effort to improve the prosperity of the region, including improved public transport, more affordable housing, and waste management [14]. These are all good efforts to increase the quality of life in the city however, based on The Economist Intelligence Unit (EIU), one of the aspects of the city's viability is also based on its culture and environment [14], which emphasizes issues such as a climate. Unfortunately, there is little stress on this particular aspect to date.

However, rendering Malaysia's cities more liveable and greener is not as difficult as people would believe. If all three recommendations presented earlier in the paper are taken into consideration, we will grow once again in the global ranking of liveable cities. Malaysia was ranked 70th in 2017 [15]. In a city like Kuala Lumpur with several high-rise buildings, greenery incorporation can be the only way to enhance the city's greenery. Many areas that can be integrated with plants and trees. For example, rooftops and the outer or inner wall of a building. However, adding green alone is not enough. In order to ensure the efficiency of green integration, a proper green selection must be carried out to pick out the most strategic and quality green infrastructure. Not only does this contribute to the surrounding landscape, but it will be held to combat the rising atmosphere and carbon pollution.

3. CONCLUSION

Urban sprawl is a phenomenon that can be managed when done correctly. As Malaysia is committed to the 2030 Agenda for Sustainable Development (2030 Agenda), it will not be enough to control urban sprawl by sticking to compact development alone. With the rising global climate, the green urbanism aspect is equally important as well. The ultimate goal is to ensure that in the present, and the future, Malaysia is liveable. This can be done if Malaysia commits to creating Green Compact City. An inability for any data collection is a constraint faced while making this research. This paper could be more comprehensive and thorough with an in-depth field study.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the financial support provided by Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil for making it possible for us to pursue this research. Apart from that, this research is also an outcome from the Contemporary Global and Legal Exhibition 2020 (CoGLIEx 2020), organized by the Department of Law, Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil.

REFERENCES

- [1] Artmann, M., Kohler, M., Meinel, G., Gan, J., Ioja, I.C. (2019). How smart growth and green infrastructure can mutually support each other— A conceptual framework for compact and green cities. *Ecological Indicators* 96 (10-22). <http://dx.doi.org/10.1016/j.ecolind.2017.07.001>
- [2] Malik, A.N. (2016). Policies and issues concerning urban sprawl and compact development paradigm adoption in Greater Kuala Lumpur, Malaysia.
- [3] Neuman, M. (2005). The Compact City Fallacy. *Journal of Planning Education and Research* 25:11-26. DOI: 10.1177/0739456X04270466



- [4] Nallathiga, R. (2007). Compact City and Smart Growth as Policy guiding models for achieving Sustainable City Development: The case for Mumbai metropolis. *ICFAI Journal of Urban Policy II (1)*: 42-59.
- [5] Bibri, S.E., Krogstie, J (2019). Generating a vision for smart sustainable cities of the future: a scholarly backcasting approach. *European Journal of Futures Research* 7:5. <https://doi.org/10.1186/s40309-019-0157-0>
- [6] Mohammed, I., Alshuwaikhat, H., & Adenle, Y. (2016). An Approach to Assess the Effectiveness of Smart Growth in Achieving Sustainable Development. *Sustainability*, 8(4), 397. <https://doi.org/10.3390/su8040397>
- [7] Ramírez de la Cruz, E. E. (2009). Local Political Institutions and Smart Growth. *Urban Affairs Review*, 45(2), 218–246. <https://doi.org/10.1177/1078087409334309>
- [8] Lehmann, S. (2016). Sustainable urbanism: towards a framework for quality and optimal density? *Future Cities and Environment*, 2(0), 8. <https://doi.org/10.1186/s40984-016-0021-3>
- [9] United Nations Environment Programme (UNEP). (2011). Towards a green economy: Pathways to sustainable development and poverty eradication. A synthesis for policy makers.
- [10] Danjaji, A. S., & Ariffin, M. (2017). Green infrastructure policy for sustainable urban development. *International Journal of Environment and Sustainable Development*, 16(2), 112. DOI: 10.1504/ijesd.2017.10004010
- [11] Abdullah, J., Yahya, M., Mohd Yunus, M., & Md Ali Saifudin, M. (2009). Urban Sprawl in Malaysia: Evidences from Three Largest Metropolitan Areas. *Journal of the Malaysian Institute of Planners*, 69-82.
- [12] Teriman, S., Yigitcanlar, T., & Mayere, S. (2009). Urban Sustainability and Growth Management in Southeast Asian City-Regions: The Case of Kuala Lumpur and Hong Kong. *Journal of the Alalays; An Institute of Planners*, 47-68.
- [13] Abdullahi, S., Jabur, M. N., & Pradhan, B. (2014). GIS-based sustainable city compactness assessment using integration of MCDM, Bayes theorem and RADAR technology. Geocarto International.
- [14] Mun, Y. S. (2019, March). Is Greater Kuala Lumpur a Liveable City. *JURUTERA*, 7–10.
- [15] Sun Media Corporation Sdn. Bhd. (2017). KL is second most liveable city in Southeast Asia. Retrieved August 17, 2017, from <https://www.thesundaily.my/archive/kl-second-most-liveable-city-southeast-asia>



Female Empowerment: Managing Roles and Challenges as ‘Edu-Mums’

***Josephine Anak Freni Affrin, Krishnaveni K. Subramaniam, Angeline Wong Wei Wei**

Faculty of Creative Industries, UTAR Sg. Long, Kuala Lumpur Malaysia

*E-mail: josephine@utar.edu.my

ABSTRACT

In female empowerment, women are given the chance to reconstruct and expand the possibilities for them to be successful in circumstances in which they previously were not able to do so due to some constraints. In line with that, female teachers, who are also ‘Edu-mums’, in Malaysia are advised to upgrade their academic qualification by obtaining a bachelor’s degree. Besides being educators, they played the roles of a mother and a student. The objectives of this study are; to find out if these women are empowered when they are highly educated and to look into the challenges faced in their journey of pursuing their undergraduate studies. Semi-structured interviews were conducted; and questionnaires were distributed to mother-teachers in a private university. These ‘Edu-mums’ are from 34 years to 46 years and the number of children that they have are ranged from 1 to 6. They were also studied in terms of their multiple roles as well as the domestic, career and academic responsibilities. Special attention was paid to their coping strategies employed to overcome challenges, as well as how they had experienced empowerment through the process of managing multiple roles. The recommendations to encourage more ‘Edu-mums’ to pursue higher education include getting the universities to give more time allowance for completion of assignments, replacing some of the face-to-face classes with blended learning, and bringing awareness of the needs of having counselling services.

Keywords: Female empowerment; gender roles; mother-teacher-undergraduates

1. INTRODUCTION

Over the years, there has been a noticeable increase in the interest of pursuing higher education around the world, especially among working mothers. In furthering higher education, one is given the chance for networking, new credentials and certifications, and extended opportunities at the current job. As for adults, they also gain the sense of intrigue they obtain from expanding their knowledge of a field (Archer, 2015).

In relation to women, education and empowerment; Khatri (2016) believes that women can be empowered only when they are literate and educated. It is education that leads the independence for development.

With education, women can play a very important role in the development of the economy and can change the position of society by improving the quality of life at home and outside. Education improves women’s ability to process and utilise new information and increases the likelihood that women will look after their own as well as family well-being (Singh and Singh, 2017).

Agreeing to that, to certain degree, education does empower women in average-income countries (Samarakoon and Parinduri, 2015) and empowering women through education is a

great advantage both to women and to society as a whole (Gupta, 2014)

Bera (2016) defined ‘Women empowerment’ as the process of allowing and developing ability or capability in women in order to think and act freely, employing their choice and controlling their lives and thus reducing discrimination and exploitation towards them.

Having empowering women involved fully in economic life across all sectors is essential so as to build stronger economies, attain universal development and sustainability goals, and better quality of life for women, men, families and communities.

On the other hand, in pursuing studies, juggling between profession and studies is not an easy task especially among women who have multiple roles in the society. However, many of these women who are ‘Edu-mums’ braved themselves in striving through this journey. In fact, for professionals or women who are already working, the ability to continuously acquire new knowledge and apply it to their jobs is a useful asset as it will enable them to work and perform better (Sharmini, 2014).

In 2015, close to 55 percent of higher education intakes (public and private universities, community colleges, and polytechnics) were dominated by females at 280,296 versus males at 230,858. Females showed a higher domination in public universities’ intake at 106,277; equivalent to 63 percent, versus males at 61,850 (Anas Alam Faizli, 2017).

Research Background

This research draws attention to the inadequate research literature on the experiences of postgraduate ‘Edu-mums’ pursuing higher education, particularly in Malaysia. It provides reasons why the experiences of these women are important and useful for further evaluation, and describes the benefits of higher education for ‘Edu-mums’ and their families.

Many teachers in Malaysia who are mature, female and mothers have decided to upgrade themselves in joining the Ministry’s Teacher Education programme and pursue their tertiary education.

Education can improve women’s capability to process and apply new information and increase the probability that women will look after their own as well as family well-being. Indeed, it may strengthen women’s negotiating power within their households because it provides them with knowledge, skills, and resources to make life choices that improve their welfare.

In addition, education is indeed important for women empowerment as it helps the women to respond to challenges in persevering their traditional role and changing their life. In many fields, educated women have played a very important role in the development of the economy and can change the position of society by improving the quality of life at home and outside.

Research Objectives

The objectives of this study are; to find out if women are empowered when they are highly educated and to look into the problems and challenges faced by these mother-teachers in their journey of pursuing their undergraduate studies.



Significance of the Study

Some ‘Edu-mums’ who decide to pursue their studies at tertiary level need great effort as they have multiple roles to carry out daily. In this study, we would want to investigate how the current ‘Edu-mums’ who are currently continuing their studies at a tertiary institution obtain the motivation and inspiration, by exploring their difficulties and issues faced while they cope with their multiple roles.

Many local universities, public or private, support the idea of in-service teachers pursuing their studies for further career and personal development and this research may give encouragement and inspiration to these mature students who wish to improve their academic qualifications. With the anticipation of knowing the possible issues and difficulties in pursuing their studies, they will be prepared to face the challenges once they are accepted in any institutions. In line with that, indeed we expect women empowerment through education may be achieved.

2. LITERATURE REVIEW

‘Edu-mums’ are mother-teachers who pursue their studies that have shown changes and adjustments in their life experiences, employment histories (experience in one or more areas of work and posts) and domestic status (Callister, Newell, Perry & Scott, 2006).

‘Edu-mums’ deal with certain difficulties in order to successfully continue and obtain their educational goals. According to Lidgard (2004) the main issues for these ‘Edu-mums’ found time in managing their roles successfully, tallying their school workload and family responsibilities, and dealing with children or family members getting sick and financial issues. Mother-teachers who are also mature university students face difficulties in balancing work, studies and family life (Arskey, Marchant and Simmill, 1994). Apart from that, they experience lack of time in spending with their children, in social commitments or family functions, and to study and complete assignments. ‘Edu-mums’ also feel pressured in looking after their family while pursuing their studies (Thompson, 2000). Neale (2001) also stated that coping with family issues as one of the main obstacles in hindering mothers’ ability to attain their education goals.

Betz and Fitzgerald’s (1987) summaries of studies (cited in Powell, 2009) on career women showed the factors that had facilitated women’s career development. The factors included: (a) individual variables (high ability, high self-esteem, and strong academic self-concept), (b) background (working mother, supportive father, and role models), (c) home lifestyle (single or late marriage none or few children). Two major individual variables were identified that had facilitated careers are high self-esteem and strong academic self-concept.

Gender role theory

The female identity is often closely associated with how a woman plays her roles as an individual, a member of the society, as well as a mother, wife, daughter, employee, and friend of others. The role of a married woman in her family is tied to motherhood and the expectations that come with it, as “the physiological ability of women to bear children is equated with the exclusive ability to raise them” (Lynch, 2019).

As most women who are mothers have their own careers and the opportunities to further their education, the responsibilities of child care and other domestic roles are shared with



spouses or other individuals who are entrusted to give their assistance. Thus, women move beyond the expectations of traditional gender roles to enrich themselves in spite of the challenges that they may face in the process of doing so.

That being said, the obstacles that may come in playing multiple roles of being a mother and career woman are worth looking into. As cited by Qureshi, Shahzad and Sarwat (2018), Sieber (1974) stated the handling of multiple roles that may be in opposition to each other may prove to be stressful – the condition of role conflict. The challenges of negotiating the demands of motherhood, career and student life need to be examined in terms of the extent to which each may become an obstacle to the other.

Female empowerment

The concept of empowerment in this research is closely related to how people feel about themselves regarding their achievement of something good for themselves as a result of having the autonomy to work for it. Wolf, Albinsson and Becker (2015) conceptualize female empowerment as a form of going against the norms, as they state,

Resisting norms is a common theme in leisure and gender theory where women's feelings of empowerment is related to self-expression, self-confidence, and independence (Freysinger & Flannery, 1992), perception of increased physical strength (Brace-Govan, 2004), the acquisition and mastery of new skills (Wheaton & Thomlinson, 1998), and the pleasure of countering expectation about appropriate leisure activities (Auster, 2001).

In terms of female empowerment, Richardson (2018) sees how it gives women the chance to reconstruct and expand the possibilities for them to succeed in circumstances in which they previously were unable to do so due to restrictions. Thus, women feel a sense of achievement due to their own autonomy and effort in accomplishing what they have set out to do for themselves.

Theoretical Background

This research explores how 'Edu-mums' switch between different roles as mothers (and wives), teachers and students. It examines the ways in which the traditional role of being a mother is managed or has changed in new ways as 'Edu-mums' further their studies part time and carry out their teaching career at the same time. The question of whether any form of support from spouse and other family members is given to 'Edu-mums' who may experience changes in how they manage their time as 'Edu-mums' is also pertinent in this research. The research also looks into any evidences of positive or negative changes in terms of the relationship with spouses and family members as a result of moving beyond the traditional domestic roles.

As mentioned earlier, there is also the issue of role conflict which occurs when the responsibilities that come with the roles of being a student and a teacher are in opposition with the demands of motherhood. In this context, the research explores whether 'Edu-mums' may have experienced any difficulties in coping with the challenges of playing multiple roles in their family, work and study lives.

This research examines whether there are evidences of the sense of female empowerment that is experienced by these 'Edu-mums' in their journey of pursuing their degree. The decision that they have made to make adjustments to their roles as mothers, teachers and students may lead to different consequences for different individuals. Hence, there is a need to look into the

possibility of a positive outlook about themselves and the factors that may have led to the sense of being empowered in achieving higher qualifications for the betterment of their career. The research also sets out to determine if the opposite of empowerment is indeed the case.

3. METHODOLOGY OF THE STUDY

The data were collected *via* two methods;

- 1) Qualitative approach where interview sessions were held in order to obtain relevant information from participants for in-depth understanding of their situation, issues and problems.
- 2) Quantitative approach in which an online questionnaire which incorporates Likert scale and open-ended questionnaire was constructed based on the scope of the study. The URL of the online questionnaire was distributed to teachers who were undertaking the programme.

Interviews

Ten mothers who are teachers and also undergraduates were invited to participate in this study. All of them had at least one dependent child. The women's ages ranged from 34 years to 46 years and their number of children ranged from 1 to 6. Interviews were conducted in an environment where the interviewees felt safe and positive.

They explained how furthering their studies affected their roles as 'Edu-mums'. Besides that, they related their experience on how they managed the situation when their child was ill. The interviewees also recounted the handling of their course work and the mode of communication with other course mates. Addition to that, they gave some suggestions to the training providers/policy makers to make life easier for them and their families while they were studying as in being considerate in giving school tasks to them.

Online Questionnaires

This research utilized the online research questionnaire method to obtain responses from part-time 'Edu-mums' pursuing their first degree on a part-time basis at a tertiary institution. A total of 23 respondents completed the questionnaire. The questions included a mix of multiple-choice questions, short and long answer questions as well as rating and Likert scale questions. Some questions in different sections were similarly constructed to determine whether experiences and problems faced by the respondents remained the same or evolved through the different stages of their studies.

Sampling Process

Purposive and snowball techniques were used to identify the respondents and interviewees. In a purposive sampling process the researchers decided what needs to be known and sets out to find people who can and are willing to provide the information based on knowledge or experience. It is typically used in qualitative research to identify and select the information-rich cases for the maximum utilization of available resources. This involves identification and selection of individuals or groups of individuals that are proficient and well-informed.



Research Design

This was an exploratory research because it also focused on a group of 10 interviewees. The focus group was mothers-teachers, 'Edu-mums', pursuing their undergraduate studies in a university. Specific questions were asked during the interview session to seek feedback on factors of motivation, problems, challenges and experience as mothers, teachers and students. The open and natural discussion format of the focus group allowed for a wider variety of perspectives in a shorter period of time.

Data Analysis

Negotiation of Gender Roles

Motherhood

All interviewees expressed that the role of being a mother is made more challenging due to the addition of the roles as a student and a teacher at the same time. Interviewee 5 stated that there are more responsibilities in her daily routine since she started her studies. For Interviewee 1, she made time in the morning for her ***“children, house chores, cooking and laundry”***. Interviewee 1 described her experience of being a mother-teacher-student, 'Edu-mum', as one of the challenges she faced was time management - ***“I have to manage my time well as I need to come to school, look after my children and teach tuition as well”***. As interviewee 1 is a single mother, her responsibility also included playing the role of the breadwinner in the family. As such, she is also a tuition teacher to gain additional income to support her family better. The challenges of motherhood that these 'Edu-mums' had to face were evidently multiplied when they were required to make time for their work and studies on top of their domestic responsibilities.

For Interviewee 3 who had just delivered a baby and gone through her confinement, often felt tired taking care of her baby and study matters. She further described how she prioritized the family duties - ***“Do the important things first, and manage family first. Sleep late. One of the experiences, in one hand I was rocking the cradle, the other hand I was working on the laptop”***. For Interviewee 3, she stated – ***“When I come home, I concentrate on my child”***. Interviewee 2 also pointed out that her children are the first priority for her, as she mentioned, ***“my children are my first priority. Sometimes I have to take MC, medical leave to spend time with my children”***. When the children of Interviewee 7 fell sick while she had to do her assignments and school work, she would choose to deal with her children first as her family was her priority. For Interviewee 4, she stated positively that she had more time to spend with her son during the period of her study. This was perhaps due to the fact that she was given less teaching load during her study leave. Thus, for some of the 'Edu-mums', the prioritization of the family and specifically motherhood became their focus and coping strategy in managing multiple roles simultaneously.

As motherhood involves many responsibilities and self-sacrificing duties for the children and the family, it is a challenging aspect for 'Edu-mums' to handle especially when they have other priorities that need to be attended to. More than 50% of the online questionnaire respondents did not have major problems in dealing with their children, though more than 30% of them expressed their agreement with the statement that their children required much attention from them amidst their tight study, work and family schedules.



Hence, time management was crucial for all the interviewees in juggling motherhood well in the midst of their studies and work. 78.3% of them agreed that they did well in managing their time playing the roles of ‘Edu-mums’, while 21.7% of them struggled in juggling the roles due to time factor. In many cases, ‘Edu-mums’ who found it difficult to cope with time management had also experienced role conflict whereby they had problems fulfilling the responsibilities of motherhood and the roles of being a student and school teacher at the same time.

In addition, the “good mother” construct or stereotype, which traditionally refers to mothers who are homemakers and who spend all their time caring for their children and household chores, was challenged and negotiated to reflect the ability of ‘Edu-mums’ in managing multiple roles efficiently. The responses for the online questionnaire revealed that 60.9% of them strongly agreed and 21.7% agreed with the statement - ***“I am confident that I am able to be a good mother and excel in my studies at the same time”***. Thus, the notion of managing motherhood well was linked to the ability to have excellent academic performance simultaneously. As to the statement - ***“The need to sacrifice family time and be away for my studies does not make me a ‘bad’ wife and mother”***, 47.8% of the online questionnaire respondents strongly agreed that they did not feel a sense of guilt in pursuing their studies at the cost of sacrificing time spent with their family. Interestingly, 34.8% of the respondents chose to be on the fence regarding the statement. The percentage is not low considering it was just 13% less than those who strongly agreed with the statement. This signalled a sense of uncertainty of these respondents in perceiving the decision to pursue their studies while juggling motherhood. It implies that some of the respondents might be in doubt over the compromising of their motherhood responsibilities and the inclusion of duties that were beyond the domestic sphere. Hence, there seemed to be a slight difference between those who felt positive about negotiating the role of motherhood for their studies and those who felt negative doing so.

Spouse

In addition to taking care of children and household matters, some of the ‘Edu-mums’ had to fulfil the expectations that came from their spouses. For Interviewee 3, her daily routine as an ‘Edu-mum’ also involved taking care of her husband who broke his leg in an accident. Apart from doing the household chores, looking after her child, teaching in school and managing her studies, she also had to attend to matters concerning her husband’s hospital appointments. As for Interviewee 4, she struggled with the reluctance of her husband giving permission to further her studies, at the initial stage of her studies, as she stated, ***“husband was not very happy and took time to accept [it] because I have a small child”***. The initial unhappiness of her husband could be attributed to his expectations of the role of a wife and mother, which is in line with the more traditional expectations of the patriarchal society.

Student’s Role

Apart from the domestic and work duties, ‘Edu-mums’ have to fulfil the responsibilities of being a student. The student role should be taken into account in their mother and teacher identities. Interviewee 3 stated – ***“Classes are on Saturday, whole day will be spent for my studies”***. As these ‘Edu-mums’ were teaching in schools during the week days, they could only attend classes on weekends. Thus, as they played the role of students, they would be sacrificing the time that could be spent with their family members. In order to pursue their degree, such sacrifices were necessary to bear the fruits of their academic labour – the advancement of career and betterment of themselves.



To manage their time and roles more effectively, ‘Edu-mums’ would make adjustments to their domestic and work schedules to accommodate their academic tasks. According to Interviewee 7, she would try to complete her course work past midnight after her children had slept. This strategy was also practiced by Interviewee 2 who said – ***“after my children sleep I will do my assignment. I will only sleep around 2 to 3 am and wake up early. Very tiring”***.

Tertiary education requires students to work on individual and group assignments. As such, ‘Edu-mums’ would need to work with other group members to accomplish their group assignments. From the responses to the interviews, it was found that the interviewees would negotiate the time to meet up with their group members in their convenience as they have family responsibilities to juggle at the same time. For Interviewee 1, she stated that her classes were held once a month, she and her group members would discuss their work when they met for classes or at times, they would meet up in one of the member’s houses. Interviewee 3 would only meet her group members after classes and communicate with each other after the tasks were divided equally among them. Similarly, Interviewee 7 stated that her group would divide the tasks between them and ***“call, message, email” each other to collaborate for their assignment***.

Female Empowerment

It was shown in the findings of the interviews and online questionnaire on how ‘Edu-mums’ see themselves in furthering their studies, that a majority of them demonstrated a high level of motivation (as discussed in the section on the motivation of ‘Edu-mums’) as well as a sense of empowerment in self-development through education. In other words, the interviewees and respondents felt a sense of satisfaction and achievement in that they were able to pursue their degree.

The juggling of different roles led to the perception of the respondents as capable individuals. For Interviewee 1, her children responded to her role as a student in a positive way, as she stated – ***“They feel very proud of me. They have something to tell their friends. They looked up to me as a role model”***. In a similar case, for Interviewee 6, her family and relatives also looked up to her ***“as a role model”***. She also shared that it was her mother-in-law who had motivated her to pursue her studies. This shows how the traditional expectation of the role of a daughter-in-law in the Asian context is challenged as it is no longer confined to the familial sphere but includes the need for self-development through education.

Most of the ‘Edu-mums’ expressed their pride in being able to go beyond their roles as mother and teacher to contribute to the society with their abilities.

The self-confidence / personality of the mother-teacher students

The sense of empowerment was especially felt as ‘Edu-mums’ played their roles as mothers who not only took care of their family and home, but was also able to provide a better livelihood for themselves and their children. Interviewee 3 shared that her self-motivation was very high due to the deep desire to achieve a better quality of living for her family, as she stated – ***“After married. I want to change my status life. I want to improve myself, my family. I want to give something to them. I feel by studying, I can do that”***. This could explain how many of the interviewees and online respondents seemed to have the strength to go through the challenges of juggling their multiple roles. A high percentage of the online respondents expressed strong agreement.



Feelings of pride and confidence in mother-teacher students

Based on the responses, it was evident that the respondents felt empowered being mothers who were able to excel in their career and become good role models to their children to follow their footsteps. These positive views of themselves could be seen as the pushing factors to drive each of them to persevere in facing the problems that they faced and eventually overcame all the challenges to succeed in their studies and career.

The reasons for not giving up on their studies

The sense of empowerment indicates positive changes in the character of the mother-teacher-students throughout their journey of their studies, as stated by an online respondent, “***Once we have confidence, everything can be achieved***”. The feelings of self-doubt and low self-esteem seemed have been overcome by the intention of upgrading themselves as well as to prove to themselves that they were able to pursue their aspirations in spite of the many roles being ‘Edu-mums’.

In addition, the findings of the interviews and online questionnaire show how ‘Edu-mums’ see themselves in furthering their studies as a majority of them demonstrated a high level of motivation as well as a sense of empowerment in self-development through education. In other words, the interviewees and respondents felt a sense of satisfaction and achievement in the fact that they were able to pursue their degree. Most of the mother-teacher-students expressed their pride in being able to go beyond their roles as a mother and teacher to contribute to the society with their abilities.

The sense of empowerment is especially felt as mother-teacher-students play their role as mothers who not only take care of their family and home but were also able to provide a better livelihood for themselves and their children. Interviewee 3 shared that her self-motivation was very high due to the deep desire to achieve a better quality of living for her family, as she stated – “***After married. I want to change my status life. I want improve myself, my family. I want to give something to them. I feel by studying, I can do that***”. This explains how the interviewees and online respondents seemed to have the strength to go through the challenges of juggling their multiple roles.

Based on the responses, it is evident that the respondents felt empowered being mothers who were able to excel in their career and become good role models to their children in following their footsteps. These positive views of themselves could be seen as the pushing factors to drive each of them to persevere in facing the problems that they faced and eventually overcame all the challenges to succeed in their studies and career.

The sense of empowerment indicates positive changes in the character of the mother-teacher-students throughout their journey of their studies, as stated by an online respondent, “***Once we have confidence, everything can be achieved***”. The feelings of self-doubt and low self-esteem have been overcome by the intention of upgrading themselves as well as proving to themselves that they were able to pursue their aspirations in spite of the many roles; as mothers, teachers and students.



4. CONCLUSION AND SUGGESTIONS

This study contributes to the literature in four aspects in related to the needs to encourage future mother-teacher-students in continuing their dreams through education, instilling the sense of empowerment in self-development as they succeed in their studies.

Suggestions

Various suggestions were provided by the interviewees to improve the current system to encourage more 'Edu-mums' to further their studies were analyzed and were grouped under four (4) main categories. The categories include future mother-teacher-students, school authorities, the university and the Ministry of Education.

Future Mother-teacher-students

Their advice to the future teachers who wish to further their studies is to manage time carefully because they have to juggle between the tasks of a mother, teacher and student. Besides that they also said that it is important they get support from family members. They are encouraged to be strong and not lose hope under any circumstances. Last but not least they are asked to enjoy studying because it will be a sweet memory later on.

School authorities

Based on the research findings, some of the respondents have indicated that there were problems in attending their classes due to their school duties. Hence, school authorities should be more lenient in allowing mother-teacher-students to be exempted from certain school activities to attend their lectures in the case of any clashes with their teaching schedule. The allowance for adjustments and negotiations of the teaching load would be a form of support from the school authorities that should be given to 'Edu-mums' to ease their burden of juggling their work and studies.

The university

As a recommendation to the authorities of universities, there should be considerations given to mother-teacher-students to help them lessen their burdens. Firstly, 'Edu-mums' should be given more allowance in terms of time for the completion of their assignments should they face any difficulties in meeting the deadlines. Apart from that, classes which are conducted in the form of the blended learning method should be incorporated to the conventional classroom format so that 'Edu-mums' who have problems with their schedules would not miss any classes due to their multiple responsibilities. Apart from that, the university should prioritize the improvement of the counselling services and promote the services to all students, especially the 'Edu-mums' who might face various emotional and mental stress. The awareness of such services would be beneficial to 'Edu-mums' who need professional guidance in coping with various psychological barriers.

The Ministry of Education

The education ministry can play a vital role in ensuring that 'Edu-mums' are more motivated in completing their undergraduate studies. There are needs to encourage teachers to further their studies. Hence, the Ministry should provide a higher increment for teachers, especially



‘Edu-mums’ who agree to take up the challenge of juggling multiple roles, upon the completion of their studies. Furthermore, it is recommended that there could be a change of policy in terms of reducing the administrative duties of ‘Edu-mums’ to enable them to concentrate on completing their studies in a shorter duration. There should also be a change of policy for teachers to be exempted from extra-curricular activities during weekends so that ‘Edu-mums’ are able to attend their classes which are usually held during the weekends. These suggestions to the Ministry of Education are pertinent as they serve as incentives and solutions to the existing problems that are faced by ‘Edu-mums’ in terms of the lack of incentives and adjustments to the work duties. By overcoming the hindrances, ‘Edu-mums’ would achieve their goals of academic advancement in the teaching profession. Now the government’s new policy of setting up care centers for staff in government departments can be extended to university campuses for student mothers with young children to be taken care of when they are in classes.

ACKNOWLEDGEMENT

We would like express our sincere appreciation to all who have helped us directly and indirectly in completing this research especially the ‘Edu-mums’ who willingly participated in being our interviewees, colleagues who have shared ideas and inputs in relation to their own experiences as ‘Edu-mums’, family and friends who have been very supportive and patient in lending their hands in whatever assistance that were needed related to this research work. May God bless all of you!

REFERENCES

- [1] Anas Alam Faizli (12 January 2017) Empowering women, empowering Malaysia. *Malaysiakini*. <https://www.malaysiakini.com/letters/368977>
- [2] Archer, J. (2015). *Why Adults Benefit from Furthering Their Education*. Retrieved from <https://plus.google.com/107960595558002347848/posts/KTyJ93PWA99>
- [3] Arskey, H., Marchant, I., & Simmill, C. (Eds.). (1994). *Juggling for a degree: Mature students’ experiences of university life*. Lancaster: Unit for Innovation in Higher Education.
- [4] Bera. N. (2016). Women empowerment through education. *International Journal of Humanities and Sosial Science*. ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print) Vol.2I, Issue 6, May 2016, 184-190 Published by Scholar Publications, Karimganj, Assam, India, 788711 Website: <http://www.ijhsss.com>
- [5] Callister, P., Newell, J., Perry, M., & Scott, D. (2006). The gendered tertiary education transition: When did it take place and what are some of the possible policy implications? *Policy Quarterly*, 2(3), 4–13.
- [6] Gupta, V. (2014). Women empowerment through education. *International Journal of Advanced Research in Management and Social Sciences*. ISSN: 2278-6236. Vol. 3, Issue 12, 231-238 www.indianjournals.com/ijor.aspx?target=ijor:ijarmss&volume=3&issue=12&article=018
- [7] Khatri, R. (2016). The Role of Education towards Women Empowerment in India. *International journal of Advance Research (IJAR)*. ISSN: 2320-5407, 4(11), 550-555. Article DOI: 10.21474/IJAR01/2117 DOI URL: <http://dx.doi.org/10.21474/IJAR01/2117>
- [8] Lidgard, C. (2004). *A Christchurch College of Education perspective of the NZUSA 2003 Student Parent Survey: A survey of the needs of students who care for children*.



- Christchurch: Christchurch College of Education
- [9] Lynch, M. (2019) Localizing Gender Equality after Conflict. *Peace Review: A Journal of Social Justice*. Vol. 31, Issue 1. 83-90 <https://doi.org/10.1080/10402659.2019.1613600>
 - [10] Neale, J. (2001). *Is it different for women? Comparing the university experience of younger students and those aged 40 and over*. Retrieved from www.makerere.ac.ug/womensstudies/full%20papers/Jenny%20Neale.htm
 - [11] Powell, K. (2009). *Educational psychology of the self: an interactive workbook*. Dubuque, IA: Kendall/Hunt
 - [12] Richardson, R.A. (2018) Measuring Women's Empowerment: A Critical Review of Current Practices and Recommendations for Researchers. *Social Indicators Research*, Springer 137, 539–557
 - [13] Samarakoon, S. & Parinduri, R.A. (2015). Does Education Empower Women? Evidence from Indonesia. *World Development*. Vol.66, February 2015, Pages 428-442 <https://doi.org/10.1016/j.worlddev.2014.09.002>
 - [14] Sharmini, P. (23 February 2014). Adult education: Learn while you can. *New Straits Times*.
 - [15] Sieber (1974). Toward a theory of role accumulation. *American sociological review*. JSTOR
 - [16] Singh, S. & Singh, H. (2017). Education and Women Empowerment. *International Journal of Enhanced Research in Management & Computer Applications*. ISSN: 2319-7471, Vol. 6, Issue 11, November-2017
 - [17] Thompson, J. (2000). *Women, class and education*. London: Routledge.
 - [18] Wolf, M., Albinsson, P.A., & Becker, C. (2015). Do-it-yourself projects as path toward female empowerment in a gendered market place. *Psychology and Marketing*, 32(January), 133-143. doi:10.1002/mar.20768



Case Review of Bin Abdullah – Impacts and Development in Malaysian Law

***Ainul Mardhiyyah Tajudin, Zubli Quzairyl Zubli, Imran Alli Razz Rozzfaisal, Nur Dalili Fahimah Nuradli Ridzwan Shah, Nurul Hasifah Azahar, Abu Zaid Omar**

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: ainul9561@uitm.edu.my

ABSTRACT

Malaysia is known for its dual legal systems which consist of Civil and Syariah laws. Due to that reason, conflict of laws arises in situations like registration of name and birth of a newborn. It appears that although it is an administrative and civil matters, the National Registration Department will look on the issues such as religion and the legitimacy of a child which relates to the religion of Islam. Thus, it leads to the conflict of laws. It is unavoidable that the case will be filed in civil courts since it involves administration and registration process. The approach was taken by the court which is not allowing importation of Islamic law in this issue will result in the decision that contradicts with Islamic principles. This will affect the well-being of the party who seeks justice for their case because Syariah law may say otherwise. Thus, the objectives of this paper are to look at the recent approach taken by our Federal Court and to analyse the case of *Jabatan Pendaftaran Negara & Ors v Seorang Kanak-Kanak & Ors* (Majlis Agama Islam Negeri Johor, intervener) [2020] MLJU 326. Apart from that, this paper will also highlight several cases within this context. The research methodology of this paper is doctrinal. The information gathered for this research paper is based on secondary sources such as journal articles and case laws. This paper concludes that based on this particular case, it gives a new milestone in sources of laws in Malaysia by relying on Fatwa Kebangsaan to solve the issues relating to Islam. This article also analyses the usage of syariah law to fill the lacuna for matters regarding the religion of Islam in civil cases.

Keywords: Bin Abdullah's Case, Conflicts of Laws, Civil Law, Syariah Law

1. INTRODUCTION

Malaysia is known to be one of the moderate Muslim countries in the world. Being a well-known Muslim-majority country with estimated 60.4% of the total population, Malaysia still has other races which Muslims need to respect and have good relationships with. Although Islam is the official religion of the Federation according to the Federal Constitution, Islamic law (Syariah law) does not fully govern the country. In fact, Muslims are commonly subjected to the national law, comprising Civil law, Syariah law and indigenous law. It is important to note that they will be tried in different courts according to respective jurisdictions; in matters regarding civil disputes, in Civil courts; while in matters concerning birth, marriage and divorce, in Syariah courts. Modern Muslim societies are now facing the challenge of applying Syariah law in contexts that have changed markedly from those that existed during its original implementation in the early decades of Islam [1]. It is known that the current Islamic legal system has gone through periodical changes of growth and renewal [2]. This happens even more rapidly when people are becoming more aware of the Human Rights and putting it side by side with the Syariah law.



The main discussion of this paper will revolve around the case of *Jabatan Pendaftaran Negara & Ors v Seorang Kanak-Kanak & Ors* (Majlis Agama Islam Negeri Johor, intervener) [2020] MLJU 326. In this case, actions were taken when a child was not permitted to be named after his father. Questions have aroused due to the fact that the child was being punished for the mistake of his parents and it possibly could ruin the child's future. Many have debated the importance of the child to be named after his father as it gives the child a sense of belonging to the family in order that the child will not be humiliated and discriminated as an illegitimate child. This issue has even caught the attention of the Sultan of Johor, Sultan Ibrahim Iskandar, as he addressed that the fatwa that has been made in the past shall not do injustice towards illegitimate children and humiliate them in the future. On the other hand, the stern implementation of Syariah law imposing a penalty on the child is for the morality, so that others will view this as a lesson.

The main objective of this paper is to identify loopholes and challenges faced by the Syariah law in Malaysia on addressing unprecedented situations to adapt to the changes in our time. The paper begins by explaining a related case similar to this situation in the past, *Conflict of Law in Lina Joy's case*. Followed by 'Bin Abdullah' case, which we will go in-depth about the case. In the next section, we will state the challenges faced in addressing these matters and further propose suggestions and recommendations for a new and standardized Syariah law. To the very end, the significance of the Bin Abdullah's case in the legal field shall be accentuated. There is no doubt in the fact that Islamic legal transformation would lead to a quantum leap which involves changes to the concept, philosophy and implementation of Islamic law as applied in Malaysia, from an existing design to a new form, which is more valuable, efficient and effective in confronting or administrating the problems of the Muslims in Malaysia through the empowerment of legal institutions [3].

2. CONFLICT BETWEEN CIVIL AND SYARIAH LAW

The Decision of Lina Joy's Case

Before the case of Bin Abdullah, other case that involved the conflict between Civil and Syariah Law is Lina Joy's case. The fundamental issue of the case is whether the matter of apostasy falls under Civil or Syariah Court jurisdiction. The background of the case is the plaintiff applied to the National Registration Department (NRD) to remove the word 'Islam' in her National Registration Identity Card (NRIC) after changing her name to Lina Joy. However, the issue of court jurisdiction was only catered in the High Court and Federal Court wherein the Court of Appeal the matter of administrative law was dealt.

As stated in High Court by YAA Faiza Tamby Chik in his judgement, plaintiff purported renunciation cannot be determined by the Civil Courts but by the Syariah Courts as according to Article 121(1A) [4]. Although YAA Faiza Tamby Chik was qualified to make the decision himself, he rests the case to the Syariah Court as the matter of apostasy falls under Syariah Court jurisdiction. The case went up to the Federal Court and the issues were regarding the decision of the Director-General of NRD to impose order or certificate by Syariah Court regarding apostasy to change the word 'Islam' in Lina Joy's NRIC and the correctness of the decision in the case of *Soon Singh a/l Bikar Singh v Pertubuhan Kebajikan Islam Malaysia (PERKIM) Kedah* [1999] 2 CLJ 5.

In order to make the decision whether the matter of apostasy falls under Syariah Court jurisdiction, YAA Ahmad Fairuz reviewed the correctness of *Soon Singh a/l Bikar Singh v Pertubuhan Kebajikan Islam Malaysia (PERKIM) Kedah* [1999] 2 CLJ 5. As elaborated in his



judgement, the phrase “Islamic Law” in Item 1, List II of the Ninth Schedule is one of the matters which fall under Syariah Court jurisdiction [5]. Hence, apostasy falls under Syariah Court jurisdiction as it is under Islamic Law. The fact was supported with Article 74(4) of the Federal Constitution. It is stated that general expressions in the Ninth Schedule cannot be restricted with specific expressions in the Ninth Schedule [6]. YAA Ahmad Fairuz agreed with the decision of Soon Singh’s case. Thus, it is clear as day that apostasy falls under Syariah Court jurisdiction and by the virtue of Article 121(1A), Civil Court cannot interfere on the matter of apostasy.

In both cases of Lina Joy and Bin Abdullah, it might be seen as a matter of administrative law where Lina Joy wanted to change the word ‘Islam’ in her NRIC and the child wanted to be named with his father’s, respectively. However, the approach taken by the judges in both cases are different as the decision in Bin Abdullah’s case took a new path in our legal system. In the recent Federal Court Judgement, YAA Rohana Yusuf took an approach to refer to Muzakarah Jawatankuasa Fatwa Kebangsaan that illegitimate child can be named with “Bin Abdullah.” Additionally, she referred to fatwa by Perlis, Pulau Pinang, Kedah and Negeri Sembilan regarding the name of an illegitimate child. Hence, the matter of administrative law was catered in Bin Abdullah’s case by referring to fatwa as authorities. Therefore, it is clear that the approach taken in Lina Joy’s case was by deciding whether Civil or Syariah Court has the jurisdiction in the matter of apostasy while in Bin Abdullah’s case, the approach taken was by referring to Islamic law in producing the verdict.

The Decision of Bin Abdullah’s Case

The fundamental issue of *Jabatan Pendaftaran Negara v Seorang Kanak-kanak* [2020] or also known as the “bin Abdullah” case is whether a Muslim illegitimate child can bear his father’s name as the surname. The case is regarding a child who was born in less than 6 months of his parents’ marriage which under Syariah law makes him an illegitimate child. The child’s parents applied to the National Registration Department (NRD) to have the father’s name on their child’s birth certificate. However, the NRD refused to replace it with the father’s name and placed “bin Abdullah” instead as the child was illegitimate. Therefore, the parents filed a judicial review application at the High Court, but it was dismissed in August 2016. However, in April 2017, the Court of Appeal reversed the decision and held that a Muslim illegitimate child could bear his father’s name instead of using “bin Abdullah”. The Court of Appeal addressed the existence of Section 13A(2) of the Births and Deaths Registration Act (BDRA) 1957. Section 13A(2) of the BDRA allows an illegitimate child to bear a surname of its mother where the mother is the informant and volunteers the information. However, if a person who acknowledges being a father in accordance with section 13 requests, his surname may be inserted. As stated by the Court of Appeal, according to Section 13A(2) there is no distinction made between a Muslim child and a non-Muslim child and there is no requirement for an illegitimate child to bear “bin Abdullah” as the father’s name [7].

However, the Federal Court judges took a step further by relying on fatwas on naming illegitimate child which the Court of Appeal did not. Based on the Federal Court judges references on every States’ fatwas, majority of the judges ruled that the illegitimate child cannot be named “bin MEMK” and there was a consequential order to remove “bin Abdullah” from his name. The order to remove “bin Abdullah” from the child’s birth certificate was because the child was born in Johor which has no fatwa gazetted on naming an illegitimate child. The Federal Court judges’ decision to not name the child as “bin MEMK” may be due to the reason to protect the lineage and inheritance of the family. In the following case, it sets a precedent on

how to name an illegitimate Muslim Malay child and reduces extensive control of the National Registration Department (NRD) over the registration and naming process of the said child.

In the Federal Court, there was a majority judgment and a dissenting judgement. Four out of seven federal court judges believe that a Muslim child conceived out of wedlock cannot bear his father's name as a surname because Section 13A(2) of the Births and Deaths Registration Act (BDRA) 1957 do not apply to the Malay naming system as Malays are found to not have surnames. Thus, this explains the reason why the child could not be named "bin MEMK". However, a dissenting opinion was given by three out of seven federal court judges who believe that the registration of a child is merely an administrative process which should allow the child to be named after the father. The judges have taken different approaches which may be due to the different religious backgrounds of the judges itself. The judges who make up the majority of the judgment are Muslim whereas the minority judges are non-Muslim. Therefore, the Muslim judges would have known that naming an illegitimate child is more than an administrative process as in Islam, there are further consequences in the future of the child in terms of the inheritance, lineage, being the wali of the child's marriage and many more.

3. SUGGESTION IN SOLVING CONFLICT OF LAWS

Standardization of Syariah Laws in Malaysia

One of the issues accrued upon light during the 'Bin Abdullah' case in the Federal Court was to determine whether the Director-General of the National Registration Department (DGNR) had made the correct decision in registering the births of Muslim children by relying on sources of Islamic Law. In dealing with this issue, the apex court ruled out that it is permissible for the DGNR to rely on Islamic law in registering the births of an illegitimate Muslim child. However, the DGNR had relied on the Fatwa issued by the National Fatwa Committee on a child born in the State of Johor. While the National Fatwa Committee had ruled out a Fatwa on the naming of an illegitimate child for Muslim children, Johor had yet to do so. To begin with, a Fatwa or legal ruling is defined as a published utterance given by Mufti, gazetted and made known to the public [8]. There are various Fatwas gazetted or issued on naming an illegitimate Muslim child among states in Malaysia and it may differ from one state to another. For instance, there is a fatwa gazetted in Perlis that states an illegitimate child can be named after his biological father except if the latter denied the child is his while a fatwa gazetted in Penang states that an illegitimate Muslim child must be named or "bin" after "Abdullah". These substantive differences in Fatwas between states are reasonably foreseen as matters pertaining to the religion of Islam falls within the state list of the Federal Constitution [9].

Therefore, some initiatives were done to promote uniformity of Fatwas among states. One of the steps is the establishment of the National Fatwa Committee (NFC) under the National Council of Islamic Affairs by the Conference of Rulers [10]. According to Section 14 of the Council Regulation, the task of the former is to deliberate, decide and issue fatwas on any matters related to the religion of Islam that are referred to it by the Majlis Raja-Raja. Understandably, based on this section, the NFC serves as a coordinating body in dealing with issues concerning the interest of the Muslim community in Malaysia. However, it is important to note that a fatwa issued by the NFC must adhere with the method enshrined by each respective state prior to be gazetted as a Fatwa enforceable in a state. In light of dealing with the 'Bin Abdullah' issue in Johor, the Fatwa by the NFC can only be applied in Johor if the fatwa has been agreed upon by the conference of rulers [11]. As a result, not all Fatwas by the NFC would be binding in Johor including a Fatwa on 'Bin Abdullah' issue. Therefore, it is



reasonable to suggest for a standardized Fatwa to be enforced among all states in Malaysia to avoid any dissimilarity in adopting a fatwa especially involving public interest. It is of utmost importance to make it compulsory for every states' Fatwa Committee to discuss with the NFC and adopt similar Fatwas before submitting a fatwa to the Majlis. One of the methods in achieving this objective is by amending state enactments concerning the procedure in issuing a fatwa [12]. Albeit such proposal requires onerous task, it is, however, essential to promote standardization of Fatwa between states in Malaysia for the interest of the Muslim community in the future.

4. EFFECT OF BIN ABDULLAH'S CASE

The court's decision in Bin Abdullah's case affected a lot of Malaysia's Muslim children who are in the same position as the child in this case. Children are named 'bin' or 'binti' Abdullah by the NRD if they are conceived out of wedlock, but the child's father agreed to marry the mother before the child was born. This case discussed about a child who is considered as illegitimate under Syariah Law as he was born less than six months after the parents' marriage. Two years later, the child's birth was registered under Section 12 of the Birth and Death Registration Act (BDRA) 1957 with "bin Abdullah". However, the parents want him to bear the father's name and issued a judicial review to remove "Bin Abdullah" [13].

In majority ruling, the government was demanded to detach the words "bin Abdullah" from a Johor-born illegitimate Muslim child's name from his birth certificate by the Federal Court, and also reversed a previous ruling that giving permission or the father's name to be the end of the child's name [14]. The Federal Court also stated that the Muslim child is not allowed to insert his father's name as part of his name, as Malays do not have a surname. A law allowing fathers to seek for their surnames to be registered as the child's surname also does not apply to Malays. Section 13A of the Births and Deaths Registration Act mentions that a legitimate child's surname in official records is to be the surname if any of the father, while saying that an illegitimate child's surname if any is to be the mother's surname if she gives such information or can be the surname of the person who acknowledges himself to be the father upon this man's request [15]. Section 13A of the Births and Deaths Registration Act had been previously administered to this case, it also stated that father should have been given permission to insert his name to the child's name. However, The Court of Appeal had no legal or factual basis to permit this child's name to take his father's name or "bin MEMK" by considering it to be a "surname" based on the majority judgment in Federal Court [16]. It is also clear for everyone that Malays do not carry any surname. Hence, Section 13A of the BDRA is not applicable to the Muslim in Malaysia as it has no application to the Malay naming system. It has also clarified that it does not enable the children to be named with the personal name of a person acknowledging to be the father of the children as it is not a surname as covered by section 13A of the BDRA.

In conclusion, national laws governing the registration of births did not apply to Muslim children as they did not have a "surname". This means, Section 13 of BDRA that known to allow fathers to insert their surname to be registered as a part of a child's name did not apply to Muslims. However, Muslims born out of wedlock do not have to carry "bin Abdullah" at the end of their name, but they also will not be able to take their father's name into part of their names.



5. CONCLUSION

The placement of Islam in our everyday life in Malaysia, particularly in the administration of justice has proven to be of such significance, albeit minor changes needed to be made to adapt to changes. Bin Abdullah's case marks a new development in sources of laws in Malaysia. In Bin Abdullah's case at the stage of the Court of Appeal, it has been stated that it should be named to his biological father. However, the recent Federal Court judgement of Bin Abdullah's case, judges took an approach referring to Muzakarah Jawatankuasa Fatwa Kebangsaan that illegitimate child should be named to bin Abdullah. What interesting in this case is that this is the first time that our federal court acknowledges to refer to Fatwa Kebangsaan if there is any matter related to religion which is a new milestone to our development of law. This way, development of law in Malaysia will be accompanied with Islamic agencies that can weigh in the micro and macro level of positive and negative consequences, in this case, allowing the illegitimate child to be named to his father or any other unfamiliar cases as they have a higher level of competency and expertise in Islam. This strong cooperation will reassure the status and sanctity of Islam.

REFERENCES

- [1] Layish, A., 2004. The Transformation of the Shari'a from Jurists' Law to Statutory Law in the Contemporary Muslim World. *Die Welt des Islams*, 44(1): 85-113.
- [2] Hallaq, W.B., 2009. *Sharia: Theory, Practice, Transformations*. Cambridge / UK / New York: Cambridge University Press.
- [3] Kamali, M.H., 2008. *Civilisational Renewal: Revisiting the Islam Hadhari Approach: Definition, Significance, Criticism, Recognition, Support, Tajdid and Future Directions*. Selangor, Malaysia: Arah
- [4] *Lina Joy v Majlis Agama Islam Wilayah Persekutuan & Anor* [2004] 6 CLJ
- [5] *Lina Joy v Majlis Agama Islam Wilayah Persekutuan & Ors* [2005] 4 CLJ
- [6] Article 74(4) of the Federal Constitution
- [7] *Jabatan Pendaftaran Negara v Seorang Kanak-kanak & Ors (Majlis Agama Islam Negeri Johor, intervener)* [2020] MLJU 326
- [8] Zaini, N., Hayatullah, L., Zuliza, M. K., & Mohd, R. M. (2012). "Standardisation of Fatwa in Malaysia: Management and Problems", *Advances in Natural and Applied Sciences*, 6(6): 923-929.
- [9] Ninth Schedule, List II of Federal Constitution
- [10] Wan Arfah Hamzah, (2008). *A First Look at the Malaysian Legal System*. Selangor, Malaysia: Oxford Fajar
- [11] Section 52 of Administration of the religion of Islam (State of Johor) Enactment 2003
- [12] Section 48 of Administration of the religion of Islam (State of Johor) Enactment 2003
- [13] Bernama. (2018). Verdict in Abdullah Case deferred. Retrieved from <https://www.nst.com.my/news/crime-courts/2018/11/433609/verdict-bin-abdullah-case-deferred>.
- [14] Ida Lim. (2020). Federal Court ordered 'Bin Abdullah' removed from Johor illegitimate Muslim child's name, but reverses use of father's name. Retrieved from <https://www.malaymail.com/news/malaysia/2020/02/13/federal-court-orders-bin-abdullah-removed-from-johor-illegitimate-muslim-ch/1837172>
- [15] Ida Lim. (2020). 'Bin Abdullah' case: What's the Federal Court's minority rulings said. Retrieved from <https://www.malaymail.com/news/malaysia/2020/02/19/bin-abdullah-case-what-the-federal-courts-minority-rulings-said/1838721>



- [16] Ida Lim. (2020). Federal Court ordered ‘Bin Abdullah’ removed from Johor illegitimate Muslim child’s name, but reverses use of father’s name. Retrieved from <https://www.malaymail.com/news/malaysia/2020/02/13/federal-court-orders-bin-abdullah-removed-from-johor-illegitimate-muslim-ch/1837172>



Depression Among University Students During COVID-19 Attacks

***Normala Ismail, Mohamad Kamil Ariff Khalid**

Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Pahang,
Kampus Jengka, 28600 Jengka, Pahang, Malaysia

*E-mail: nmala391@uitm.edu.my

ABSTRACT

Depression often occurs among students at the primary, secondary or university levels. Depression can be detected through student behaviours such as anxiety, pressure and stress. The purpose of this study was to see how COVID-19 attacks affect the level of depression among students especially college-bound students who cannot return home. Data were obtained by distributing the questionnaire forms to hundred Diploma students using purposive sampling method from various faculties at Tok Gajah College Universiti Teknologi MARA, Pahang Branch, Jengka Campus. The researchers also used the Beck Depression Inventory in a three-part questionnaire, which describes students' depression and factors contributed to their depression. The data were analysed using Statistical Package for Social Sciences (SPSS) software version 23. The result of the study showed that students were depressed not due to the inability to return home due to COVID-19 attacks but other factors like family, personal issues, academic performance achievement issues, communication barriers and social interaction problems related to peer relationships. It is hoped that the results of this study are expected to provide a solution to how depression can be overcome through faith and patience.

Keywords: Anxiety; depression; stress; students

1. INTRODUCTION

In late December 2019, a previous unidentified coronavirus, currently named as the 2019 novel coronavirus#, emerged from Wuhan, China and resulted in a formidable outbreak in many cities in China and expanded globally, including Malaysia. The disease is officially named as Coronavirus Disease-2019 (COVID-19, by WHO on February 11, 2020 [1]. COVID-19 is a potential zoonotic disease with low to moderate (estimated 2% - 5%) mortality rate. Currently, there is no definite treatment for COVID-19 although some drugs are under investigation.

Malaysia announced its first COVID-19 cases on January 25 2020 involving three China tourists who had entered Malaysia via Johor from Singapore on January 23 [2]. The number of cases then rose to 22 by February 16, represents a first wave of cases. A second wave of cases began on February 27 and since then the number of people affected by the coronavirus has risen to more than 1,000. To stem the number of new cases, the government imposed a two-week Movement Control Order (MCO) starting March 18 to March 31. The MCO was then extended three times, with current phase to end on May 12.

The effects of COVID-19 are felt by many parties. Daily affairs, planning and activities are interrupted especially when the government establishes MCO to curb the outbreak. One of the parties affected by this COVID-19 is students, especially university students. Some of them are stranded and unable to return home due to MCO. Despite the many help and assurances provided by university management, what about these students' emotions? So, this study was

conducted to see if these students are suffering from depression symptoms? Is it caused by COVID-19 attacks or other factors?

Depression is a type of mental illness that is less diagnosed until the problem becomes severe and requires intensive treatment. Almost all depressed patients have low mood episodes and have lost interest in any activity they liked. Frequent sadness, anxiety or irritability, significant low self-esteem, guilt, restlessness and difficulty concentrating, remembering information or making decisions are among the signs of depression. Depressed people also have physical symptoms such as weight gain or appetite (or decline), wake up early, lack of energy, headache, digestive problems and chronic pain. People around depressed individuals may notice a dull appearance. However, not all depression individuals show the same symptoms or symptoms. In order to classify a person as depressed, certain symptoms (except for the feeling of suicide) must be present for at least two weeks.

Depression among university students has been a controversial issue nowadays. This is because over a decade ago many experts denied the existence of depression among university students. Many studies conducted lately have shown that depression is not only present among university students but more serious than expected. Many think university students are good at taking care of themselves. It is not possible for them to be depressed. However, the opinion is incorrect. Depression among university students requires good attention and intervention.

2. LITERATURE REVIEW

According to [3], depression is a problem of emotional imbalance that is often experienced by people who face depression or stress in their daily lives. According to a study conducted by [4] in [5], they found that when someone reached the age of fifteen, one in five adolescents experienced depression. According to [6] depression among adolescents requires good attention and intervention.

Depression is a clinical syndrome that incorporates a combination of emotional, cognitive and behavioural symptoms [7]. It is also a disorder and mood disorder and includes psychiatric disorders in which the sufferer acts self-blame, is confused and feels like he has no chance of survival. According to [8], previous studies on depression cover age ranges from adolescence to adulthood. Depression in adolescence is less regarded as a clinical problem. According to a study by [9] in [10] found that 140 year-four students showed that they suffered depression caused by emotional and social loneliness.

According to [11], there are several symptoms of depression to determine whether or not a person has depression. These symptoms are divided into four main aspects: affective, cognitive, behavioural and physiological. Each of these aspects is related to each other. According to [12], the factors of depression among students are divided into three main factors such as tiredness due to exhaustion, lack of focus on learning and difficulty in completing tasks; students' cognitive and emotional well-being without being overwhelmed by the loss of thinking and emotion in their lives; and issues related to academic motivation, class problems and motivation issues.

The Beck Cognitive Depression Theory [13] is a theory for dealing with depression among students. Many of the symptoms of depression are due to the negative attitude and thinking of the individual and the symptoms are the result of insecure thinking that can lead to conflict and psychological stress. For example, they fail to see family as a healthy environment that can give

them happiness and the cause of their conflict is related to interpersonal issues. Lack of interruption and effective interaction can cause teenagers to rebel and may encourage them to act deviant.

According to a study conducted by [14], there is some evidence of family factors affecting adolescent depression. First, parental depression is clearly associated with adolescent depression. The relationship reflects a set of interactive and multidimensional factors. Second, parent-child relationships, children's temperament interactions in the family environment, parental pathology, and the impact of situations and environmental pressures on the family system are also contributing factors to adolescent depression. Third, lack of warmth and parental availability is a continuing risk for adolescent depression. Stress, depression, marital conflict, and social support are some of the important factors that can influence parental warmth and availability.

[15] have listed three factors that cause individuals to experience depression that are self-blame, self-pity and compassion for others. According to [16], further self-blame means accelerating a person's culpability for wrongdoing. When these feelings of self-blame exist within themselves, they tend to continue to criticizing and hating themselves. This attitude assures them that they are evil and useless. if persistent, self-blame causes the individual to feel disturbed and may feel like crying, sitting in silence or feeling sad which may lead to depression.

Problem Statement

This study is conducted because the researchers see depression as a problem that has hit society, especially university students. Lately, depression is a major problem among university students. One of the factors drive them to this problem is that they are vulnerable as they are burdened by tight schedules. The researchers hope that this study will help prevent and reduce depression among university students by adopting a healthy living style.

Research Objectives

The objectives of this study were to (1) look at the extent to which students who were unable to return home due to COVID-19 attack suffered from depression and (2) identify the factors that contributed to the students' depression.

Research Questions

Among the research questions are (1) are family factors causing students' depression? (2) are environmental factors contributing to student depression? and (3) are social factors contributing to students' depression?

3. RESEARCH METHODOLOGY

This study is a descriptive study where questionnaire is distributed to the analysis unit to get information. This study aimed to find out to what extent students who were unable to return home due to COVID-19 attack suffered from depression and factors that influence students' depression. The unit of analysis consists of female students who were unable to return home during the COVID-19 attack (second level MCO). They consist of diploma students from various semesters and faculties. They occupied Tok Gajah College University Teknologi

MARA Pahang Branch, Jengka Campus. The findings of this study were obtained through a questionnaire distributed to the respondents. The questionnaire is divided into two parts, Part A and Part B. Part A contains the respondents' demographic background while Part B contains factors that influence students' depression.

Instrument of Study

In this study the researchers used questionnaire as a research instrument which include several items based on the objectives of the study. The questionnaire is divided into two parts, Part A and Part B. In Part A, respondents are required to answer some questions related to their demographic background. Part B consists of 70 interval questions based on Beck's Cognitive Depression Theory [17]. A 1 (strongly disagree) to 5 (strongly agree) Likert Scale was used for respondents to indicate their answer to the statement provided.

The Cronbach's Alpha reliability measurement is used in this study. According to [18], a reliability coefficient of 0.70 or higher is acceptable. In this research, the result of the reliability analysis is between the range of 0.81 to 0.87 which indicate the items are valid and reliable for further review as illustrated in Table 1.

Table 1: Reliability Coefficients

Item	Variables	Number of Items	Cronbach's Alpha
B1	Family factors	26	0.81
B2	Environmental factors	18	0.85
B3	Social factors	26	0.87

Sample of Study

The study population consists of 199 female students who were stranded at College Tok Gajah Universiti Teknologi MARA Pahang Branch, Jengka Campus when the government announced the second level MCO. The purposive sampling method is used in this study because the analysis units consist of these students who are unable to return home due to COVID-19 attack.

Scope of Study

The scope of study consists of female students who were unable to return home during the COVID-19 attack at College Tok Gajah. They consist of diploma students from various semesters and faculties. In the researchers' opinion, they may experience depression because they cannot go home to be with their family or for other reasons. Questionnaires were distributed within a week's time. They are distributed when these students go down to the cafeteria to take away their lunch box. The students are given 30 minutes to answer in the space provided without the researchers' interference. Out of 199 questionnaires distributed, only 100 (50.25%) questionnaire forms could be used for further analysis.

Analysis of Data

The data collected through the questionnaire were analysed using the Statistical Package for Social Sciences (SPSS) software version 23. The variables were analysed using descriptive analysis involves frequency and mean. According to Beck's Cognitive Depression Theory [19], if the score (in mean) is less than or equal to 2, the level of depression experienced is low.

Scores between 2.01 to 3.00 (equal to or less than) represent a moderate level of depression. Finally, a score above 3.01 indicates high level of depression.

4. FINDINGS AND DISCUSSIONS

Respondents' Demographic

A total of 100 respondents were involved in this study and all of them were female students as shown in Table 1. Majority of respondents were age 19 to 21 years (77%). Most of them represent the Faculty of Business and Management (FPP) (45%). Majority of them are from Semester 04 (55%). In terms of Cumulative Grade Point Average (CGPA), majority of the respondents obtained a CGPA between 2.50 to 3.00 (43%).

In addition, respondents were also asked about their parents' occupation and current education. The research found that majority of the respondents' fathers' work in the government sectors (41%), followed by private sectors (30%) and self-employed (29%). On the contrary, majority of the respondents' mothers are housewives (69%), followed by those working in the government sectors (18%). Most of the respondents' fathers and mothers graduated high school (47% and 67%). Finally, majority of the respondents are from suburbs area (37%).

Table 2: Respondents' Demographic

Items		Respondent (Number)	Percentage (%)
Age	19 to 21 years	77	77
	Over 21 years	23	23
Faculties	Faculty of Business and Management (FPP)	45	45
	Faculty of Sports Science and Recreation (FSSR)	21	21
	Faculty of Applied Sciences (FSG)	16	16
	Faculty of Accountancy (FP)	11	11
	Faculty of Computer and Mathematical Sciences (FSKM)	7	7
Semesters	02	13	13
	03	17	17
	04	55	55
	05	15	15
Cumulative Grade Point Average (CGPA)	2.00 to 2.49	27	27
	2.50 to 3.00	43	43
	3.01 to 3.49	19	19
	3.50 and above	11	11
Fathers' Job	Government sector	41	41
	Private sector	30	30



	Self-employed	29	29
Mothers' Job	Housewives	69	69
	Government sector	18	18
	Private sector	6	6
	Self-employed	7	7
Fathers' Education	University/college	33	33
	Secondary school	47	47
	Primary school	13	13
	Others	7	7
Mothers' Education	University/college	18	18
	Secondary school	61	61
	Primary school	17	17
	Others	4	4
Living Residence	Urban	29	29
	Rural	34	34
	Suburbs	37	37

Research Question 1: To What Extent Do Family Factors Influence Students' Depression?

In this section, the results of the analysis of the influence of family factors on students' depression are discussed. The test used is the mean base level. Table 3 shows the mean values levels of items related to family factors contributing to students' depression.

Table 3: Family Factors Contributing to Students' Depression

Items		Mean Values	Level
B1	I find myself helpless	1.91	Low
B2	I often feel guilty	2.72	Moderate
B3	I am very sad	2.28	Moderate
B4	I did not sleep well	2.33	Moderate
B5	I want to kill myself	1.76	Low
B6	I feel restless	2.34	Moderate
B7	I always had stomach pain	2.55	Moderate
B8	I easily feel tired	2.59	Moderate
B9	I always get bored	2.74	Moderate
B10	I feel I am getting thin	2.57	Moderate
B11	I feel my family does not care about me	1.83	Low
B12	I do not think my family needs my opinion	2.00	Low



B13	I do not think my parents love me	1.92	Low
B14	My parents are always looking at my fault	2.25	Moderate
B15	My parents never praise me	2.13	Moderate
B16	My parents always look down at my opinions	1.98	Low
B17	My parents are not fair to me	2.19	Moderate
B18	I think I was displaced by my family	2.05	Moderate
B19	My parents never ask me what I want	2.15	Moderate
B20	I was not loved by my parents	3.42	High
B21	My parents do not appreciate me	3.36	High
B22	My parents do not praise me	3.18	High
B23	My parents are willing to listen to my opinion	3.06	High
B24	I do not like to ask my parents	3.30	High
B25	I am not happy with my family	3.43	High
B26	I do not have parental support	3.35	High
Total Mean		2.52	Moderate

Of the 26 items involved, 6 items recorded low mean values and 13 items recorded moderate mean values. 7 items have high mean values. The item with the lowest mean value was item B5, "I want to kill myself" with a mean value = 1.76. Meanwhile, the item with the highest mean value was item B25, "I am not happy with family" with mean value = 3.43. The result shows that these students are still rational and do not intend to commit suicide despite they are depressed. Besides, feelings of unhappiness with the family certainly make them uncomfortable and depressed. Overall, family factors have a modest effect in contributing to students' depression. The result shows that the total mean value of the family factor is 2.52 which is moderate. This supports the findings of Beck's Cognitive Depression Theory [20], if the score (in mean) is between 2.01 to 3.00 (equal to or less than) represent a moderate level of depression.

Research Question 2: To What Extent is Environmental Factors Contributing to Students' Depression?

In this section, the results of the analysis of the influence of environmental factors on students' depression are discussed. The test used is the mean base level. Table 4 shows the mean values levels of items related to environmental factors contributing to students' depression.

Table 4: Environmental Factors Contributing to Students' Depression

Items		Mean Values	Level
B27	I feel low	2.33	Moderate
B28	I do not feel like eating	2.34	Moderate
B29	I have no focus in class	2.36	Moderate
B30	I often feel very worried	2.35	Moderate



B31	I feel anxious	2.30	Moderate
B32	I feel frustrated and upset	2.09	Moderate
B33	I do not think I am good at learning like others	2.43	Moderate
B34	I always late to lecture	2.40	Moderate
B35	I am not always praise by my lecturer	2.85	Moderate
B36	I am not loved by my lecturer	3.19	High
B37	I am not happy to be in campus	3.49	High
B38	I do not like studying	3.33	High
B39	I do not like to ask the lecturer	3.03	High
B40	I do not like to give opinions in lecture	2.96	Moderate
B41	I do not like to eat	2.93	Moderate
B42	I like to sleep	2.86	Moderate
B43	I like to think bad things	2.29	Moderate
B44	I like to think negative things	3.17	High
	Total Mean	2.71	Moderate

Of the 18 items involved, 13 items recorded moderate mean values and 5 items recorded high mean values. No item has the low mean value. The item with the lowest moderate mean value was item B32, “I feel frustrated and upset” with a mean value of = 2.09. Meanwhile, the item with the highest mean value was item B37, “I am not happy to be in campus” with a mean value of = 3.49. The result shows that students have levels of anxiety and stress in control but they do not feel that campus is a happy place to live. This probably due to the MCO which do not allow them to perform any recreational activities. Overall environmental factors have a moderate effect to students’ depression. The result shows that the total mean value for the environment factor is 2.71 which is moderate. This supports the findings of Beck’s Cognitive Depression Theory [21], if the score (in mean) is between 2.01 to 3.00 (equal to or less than) represent a moderate level of depression.

Research Question 3: To What Extent is Social Factors Contributing to Students’ Depression?

In this section, the results of the analysis of the influence of social factors on students’ depression are discussed. The test used is the mean base level. Table 5 shows the mean values levels of items related to environmental factors contributing to students’ depression.

**Table 5:** Social Factors Contributing to Students' Depression

Items		Mean Values	Level
B45	I am very sensitive	2.72	Moderate
B46	I am lonely	2.30	Moderate
B47	I am not interested in learning	1.94	Low
B48	I always feel fluttered	2.69	Moderate
B49	I always feel shy	2.75	Moderate
B50	I easily get angry	2.74	Moderate
B51	I do not always finish college assignments	2.19	Moderate
B52	I always feel scared	2.56	Moderate
B53	I am not confident in myself	2.36	Moderate
B54	I like sitting alone	2.26	Moderate
B55	I do not believe in myself	2.20	Moderate
B56	I feel isolated from my friend	2.39	Moderate
B57	I think I was humiliated	2.00	Low
B58	I think I am very weak	2.26	Moderate
B59	I always cry alone	2.61	Moderate
B60	I am lazy going to lecture	2.08	Moderate
B61	I often visit Facebook for hours	2.20	Moderate
B62	I do not like to make friends	1.94	Low
B63	I easily offended	2.48	Moderate
B64	I am not good as others	2.96	Moderate
B65	I do not have many friends	3.49	High
B66	I do not like being honest	3.03	High
B67	I do not like to ask friends	3.40	High
B68	I do not have the support of my lecturers	3.06	High
B69	I do not have the support of my friends	3.13	High
B70	I do not get good results in the examination	3.11	High
Total Mean		2.57	Moderate

Of the 26 items involved, 3 items recorded low mean values and 17 items recorded moderate mean values. 6 items have high mean values. The items with the lowest mean value was item B47, "I am not interested in learning" and item B62, "I do not like to make friends" with mean value = 1.94. Meanwhile, the item with the highest mean value was item B65, "I do not have many friends" with mean value = 3.49. The result shows that students have a passion for learning and love for friends but no real friends to be trusted. The finding of this study shows that students are depressed due to social factors with friends. They have communication barriers and social interaction problems related to peer relationships. Overall social factors have a moderate effect to students' depression. The result shows that the total mean value of the social

factor is 2.57 which is moderate. This supports the findings of Beck's Cognitive Depression Theory [22], if the score (in mean) is between 2.01 to 3.00 (equal to or less than) represent a moderate level of depression.

From the results presented above, it can be concluded that students' depression levels are at a moderate level. In addition, each factor that led to depression was also at the moderate level with the highest contributing factors are environmental factors (mean value = 2.71) followed by social factors (mean value = 2.57) and family factor (mean value = 2.52). Overall, the findings show that students are depressed not because they cannot return home due to the COVID-19 attack but other factors such as family factors, environmental factors and social factors.

5. CONCLUSION

In conclusion, all of the analysis answers the research objectives and questions. It is generally seen that the level of student depression is moderate. However, this should not be overlooked because if left unchecked, it is feared that the effects of this situation could adversely affect students' survival. If not taken seriously, it is possible for students not only to fail in academic achievement, but also to give up on life. Generally, this study wanted to look at family factors, environmental factors and social factors as causes for student depression. Given that this study has certain scope and limitations, it is advisable to (1) broaden the scope of the study by engaging more students, (2) expand inference data analysis methods such as looking at the relationships between the depression factors and (3) extend the research methodology to include interviewing and students' observation. Depression is a disorder of one's feelings, therefore, if a student experiences this situation, then his or her survival will be affected. Students with depression can be restored to normal and lead a prosperous life as others with the support and encouragement from friends, lecturers and families.

REFERENCES

- [1] World Health Organization. (2020). Coronavirus disease (COVID-19) pandemic. Retrieved May 8, 2020, from https://www.who.int/emergencies/diseases/novel_coronavirus_2019
- [2] Wikipedia. (2020). COVID-19 pandemic in Malaysia. Retrieved May 8, 2020 from https://www.en.wikipedia.org/wiki/covid_19_pandemic_in_malaysia
- [3] Mohd. Sofian Omar Fauzee. (2014). Psikologi kejurulatihan: Membantu membina ketahanan mental atlet. Shah Alam, Selangor: Karisma Publications Sdn. Bhd.
- [4] Turkington, C., & Kaplan, E. (1997). Who gets depressed? Available at: http://my.webmd.com/content/article/9/1680_50549?src=Inktomi&condi.
- [5] See, C. M., & Lee, S. S. (2015). Kemurungan di Kalangan pelajar: Satu kajian kes. *Jurnal Pendidik dan Pendidikan*, 20, 113-129.
- [6] Bachanas, P., & Kaslow, N. (2011). Depressive disorders. In Hughes, J., Greca, A., & Conoley, J., Handbook of psychological services for children and adolescents. New York: Oxford University Press.
- [7] Oltmanns, T. F., & Emery, R. E. (2015). Abnormal psychology. 8th. Ed. United States: Pearson.
- [8] Iran Herman. (2015). Pembentukan budaya korporat dan minda warga perkhidmatan awam. Seminar psikologi 2005. Diperoleh pada Ogos 14, 2006, daripada World Wide Web: <http://www.enerald-library.com/insight/viewcontent.html>.



- [9] Lee Shok Mee (2014). Psikologi pendidikan 1: Teori dan aplikasi psikologi dalam pengajaran dan pembelajaran. Kuala Lumpur: Kumpulan Budiman Sdn. Bhd.
- [10] Mohamed Alfian Harris Omar, & Mohamed Sharif Mustaffa. (2066). Tahap kestabilan emosi pelajar di sebuah kolej kediaman Institusi Pengajian Tinggi Awam: Satu tinjauan. Universiti Teknologi Malaysia, Skudai.
- [11] Jamaludin Ahmad, Tajularipin Sulaiman, & Siti Rahmah Alias. (2010). The effectiveness of drug rehabilitation module on the motivation achievement among male inmates in Malaysia. *Interational Journal of Psychological Studies*, 2, 70-80.
- [12] Mohd Farhan 'Uzair Paisan. (2018). Tinjauan terhadap kemurungan dalam kalangan pelajar di Universiti Tun Hussein Onn. Tesis Sarjana. Universiti Tun Hussin Onn, Johor.
- [13] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.
- [14] Sander, J. B. & McCarty, C. A. (2015). Youth depression in the family context: Familial risk factors and models of treatment. *Clinical Child Family Psychological Review*, 8(3), 203-219.
- [15] Butler, A., Chapman, J. Foreman, E., & Beck, A. T. (2016). The empirical status of cognitive-behavioral therapy: A review of meta-analysis. *Clinical Psychology Review*, 26, 17-31
- [16] Butler, A., Chapman, J. Foreman, E., & Beck, A. T. (2016). The empirical status of cognitive-behavioral therapy: A review of meta-analysis. *Clinical Psychology Review*, 26, 17-31
- [17] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.
- [18] Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). Multivariate data analysis. 7th edition. New Jersey. Prentice Hall.
- [19] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.
- [20] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.
- [21] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.
- [22] Beck, A. T. (2019). Depression causes and treatment. Philadelphia: University of Pennsylvania Press.



Entrepreneurial Intention: An Empirical Study Among Students Taking Entrepreneurship Course

***Mohamad Kamil Ariff, Normala Ismail**

Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Pahang,
Kampus Jengka, 28600 Jengka, Pahang, Malaysia

*E-mail: kamildk@uitm.edu.my

ABSTRACT

The research conducted particularly among the students of Universiti Teknologi MARA Pahang Branch, Jengka Campus taking Entrepreneurship Course has attempted to understand the factors that stimulate their entrepreneurial intention. The study also focused on examining how many of them possess the entrepreneurial intention towards self-employment, how the relationship of demographic factors affecting their entrepreneurial intention and how is the curriculum offered to promote students' interest in entrepreneurship. It appears that the students find entrepreneurship both personally and generally desirable which suggests that entrepreneurial career in future might become among university graduates. However, training and skill development programs are necessary to increase the personal capabilities and generate interest and intention among students to have positive attitudes towards entrepreneurship. This survey has also confirmed the previous studies by others that the male persons continue to be the most active group in terms of entrepreneurship and the role of entrepreneurial role models in the family as a positive effect on the entrepreneurial perception and intention. It also appears that the entrepreneurial intention among female students is fairly low. This paper suggests that there should be continuous effort to promote female entrepreneurship and continuous or other government agencies to raise students' awareness of various avenues of support and programs available to assist them in their business start-ups.

Keywords: Entrepreneurial course; entrepreneurial intention; students

1. INTRODUCTION

Lately, entrepreneurship becomes an important instrument to promote economic growth and development in our national economies. Since 1970, many western countries have shared the same experience that large established firms can no longer create any net increase in employment. This has resulted in high level of unemployment. Apparently, the small and new firms are important as creator of new jobs [1]. There is widespread hope that small and new firms will help solve problem of unemployment and generate economic development.

Many researches done have focused on the drivers of entrepreneurial aspirations and the transformation of entrepreneurial aspiration to new venture creation. There is evidence that aspiring entrepreneur do have different demographic characteristics such as age, gender, education background, self-employment experience, family background, strength of financial resources, and dissatisfaction with hours of work and pay. It is also associated with the psychographic factors such as attitude toward risk, achievement motive, tolerance for ambiguity and locus of control [2]. Other geographical factors are the organizations, environment and nature of business.



The question of “what makes people found their new firms?” and “what factors influencing individuals’ intention to go into business?” and “what are the determinants of entrepreneurial intention?” would be part of the researchers’ discussion. According to [3], factors that determine intentions are attitude, subjective norms, perceived behavioral control, perceived control liability of behavior, self-efficacy, perceived desirability and feasibility.

Nowadays, entrepreneurship is becoming a very relevant instrument to promote economic growth and development. It was a way of thinking that emphasizes opportunities over threat [4]. From psychological point of view, the intention to become an entrepreneur has been described as the single best predictor of actual behavior [5]. In this study, the researchers will pay particular intention to educational system as the main variable on the entrepreneurial intention level and how this variable affects the intention which can result in actual entrepreneurial behavior among students taking entrepreneurship course.

2. LITERATURE REVIEW

There are many models have been developed to guide the empirical study and analysis of entrepreneurial intention. Among the widely recognized models are Bird’s Entrepreneurial Intentionality Model [6] and Shapero and Sokol Model [7] which attempts to integrate research finding about the determinants of entrepreneurial intentions and behavior. Empirically, the situational variables (for example, employment status or informational cues) or individual (for example, demographic characteristics or personal traits) variables are poor predictors which usually resulted in small explanatory power and validity [8]. Intention models are more preferred because it offers a significant opportunity to increase the ability to understand and predict entrepreneurial activity.

According to [9], personal and situational variables typically have an indirect influence on entrepreneurship through influencing key attitudes and motivation to act. For example, role models (for example, family) will affect entrepreneurial intention. On the other hand, intention-based models describe how the exogenous influences can change intentions and a venture creation.

The two main theory-driven models used by the researchers are Theory of Planned Behavior (TPB) [10], borrowed from psychology and Shapero and Sokol Model [11]. According to TPB [12], any behavior that requires the act of venture creation can be predicted by the intention to adopt that behavior. Thus, it would be possible to predict whether or not an individual will eventually launch a business by studying his or her attention to do so. In the TPB, three variables precede the formation of intention which predicts behavior: (1) the subject’s attitude toward a given behavior; (2) subjective norms or the subject’s perception of other people’s opinion of the proposed behavior; and (3) the subject’s perception of his or her control over the behavior.

According to [13], the decision to change direction significantly in life, for example by launching a business is triggered by an event in the established routine. The individual’s choice will depend on three elements: (1) his or her perception of the desirability of the proposed behavior; (2) his or her propensity to act in accordance with his or her intentions; and (3) his or her perception of the behavior’s feasibility. For example, the attraction of the idea of starting a business is probably dependent on the entrepreneurial models an individual has in his or her immediate environment, the prestige and respect ascribed to entrepreneurship as a career choice by the people around the individual, the individual’s need for achievement, the opportunities

available in the environment and so on.

3. PROBLEM STATEMENT

In this study, the researchers are interested in how students taking entrepreneurship course perceive entrepreneurship as a personal career alternative. It is widely accepted that the educational system of universities has to provide an academic environment that serve as a catalyst for high-technology businesses starts-ups [14]. The universities shall be fostering innovations and new product development through entrepreneurship. The role of university graduates shall also be enhanced as founders of innovative business.

Here, the researchers acknowledge the fact that the scope of study would be too wide if they want to cover all universities and all groups of academic graduates. Hence, the researchers will select only the students taking entrepreneurship course at Universiti Teknologi MARA Pahang Branch, Campus Jengka as targeted respondents to examine how they perceive entrepreneurship as a personal career alternative. The researchers will cover not only students from business study but also from other disciplines and background to measure their business intention.

Therefore, the following problem statements would be covered in the study: (1) How many students possess the attitude and entrepreneurial intention towards self-employment and perceive entrepreneurship as their career choice? (2) How the relationship of the demographic factors affecting their entrepreneurial intention?; and (3) How relevant is the curriculum offered in Universiti Teknologi MARA in promoting students' interest in entrepreneurship?

4. RESEARCH OBJECTIVES

The general objective of the study is to find out the entrepreneurial attitude and the entrepreneurial intention among students taking entrepreneurship course at Universiti Teknologi MARA, Pahang Branch, Jengka Campus. The objective of the study is also to find out the following: (1) The existence of certain personality features and traits that could be associated with the entrepreneurial activity; (2) How the education system and training can affect the entrepreneurial intention among the students; and (3) Through comparison of students' personality traits, attitudes towards entrepreneurship and perceptions hopefully can shed some light on differences in entrepreneurial intention among them. This will help the researchers to gain insight into how university's administration and faculty could foster new venture among students.

5. RESEARCH QUESTIONS

The following questions were sought: (1) Are the entrepreneurial intentions predicted by perceptions of the desirability and feasibility of starting a business? (2) Does the intention to start a business remain stable over time? and (3) What factors influence the temporal stability of the intention to start a business?

As [15] call it the personal development of entrepreneurial qualities motivate opportunities. Entrepreneurial spirit first results from the objective existence of entrepreneurial opportunities and then stimulates the development of psychological and sociological characteristics which help implementing the entrepreneurial opportunities. In the educational context, the acquisition of entrepreneurial qualities is clearly emphasized among students as

starting point to become managers or executives.

6. RESEARCH METHODOLOGY

The population for this research consists of diploma students studying at Universiti Teknologi MARA, Pahang Branch, Campus Jengka who were unable to return home due to COVID-19 attack. They consist of male students staying at Mat Kilau's residential college and female students staying at Tok Gajah's residential college.

The research sample is composed of students taking entrepreneurship course from various faculties. A stratified simple random sampling is used where data was collected from the questionnaires distributed over a period of two weeks when these students were taking packaged food in the cafeteria. The interest of this group lies in the fact that in terms of skills and knowledge, they appear to be excellent candidates for venture creation. Moreover, those took part in the study were near the end of their studies and were expected to have time and energy available in the near future to plan a business project.

The samples for data collection consist of 80 diploma students. Data were gathered using a questionnaire distributed among college-bound students who cannot return home during COVID-19 attacks. To avoid bias in the responses, the students were assured that participation in the study would not be disclosed. Perception variables were measured on a one to five scale with 1 (strongly disagree) to 5 (strongly agree). Questions were asked on the respondents' perception of desirability and feasibility of starting a business. Their intentions were measured as a percentage probability that the respondent would go into business following their graduation and at some point in their life.

It is important to point out that this study was aimed at explaining the formation of intention and were not concerned with the connection between intention and action. Entrepreneurial Profile Questionnaire (EPQ) [16] was utilized as a data collection instrument. The EPQ was designed to survey the effect of individual, society and environmental factors on entrepreneurial intention. From an individual perspective, the most important aspects of the entrepreneur including their attitudes, beliefs, motivations and opinions. The role of social groups includes the role and relationships of family and personal network. The EPQ allows the socio-economic environmental factors such as demographic information as well as the level and type of environmental velocity found in the society [17].

The questionnaire consisted of two parts. The first part consists of questions on the demographic profile of the respondents. The second part consists of questions eliciting information about need for achievement, locus of control, self-efficacy, instrumental readiness, subjective norms and also entrepreneurial intention. The respondents were asked to state their agreement and disagreement on a five-point Likert scale with 1 (strongly disagree) to 5 (strongly agree). After the data were collected, they were analysed using the Statistical Package for Social Sciences (SPSS) version 23 to obtain information.

To ensure the ability and validity of questions in the form of intervals, the Cronbach Alpha coefficient was computed for each of the major variables in the study as shown in Table 1. According to [18], a reliability coefficient of 0.70 or higher is acceptable. In this research, all the coefficient indicated values exceeding 0.85 which further strengthens the reliability of the instruments used for this study.

Table 1: Reliability Coefficients

Item	Variables	Number of Items	Cronbach's Alpha
1	Need for achievement (NAC)	4	0.88
2	Locus of control (LC)	3	0.87
3	Self-efficacy (SE)	2	0.86
4	Instrumental readiness (IR)	3	0.85
5	Subjective norms (SN)	3	0.86
6	Entrepreneurial intention (EI)	3	0.87

7. DATA ANALYSIS AND DISCUSSION

Demographic of the Respondents

There are 80 respondents in this study. Majority of them are male students (56.25%) as illustrated in Table 2. Majority of them are Malays (93.75%) and age above 21 years (58.75%). They are in their fourth and fifth semesters depending on the faculty. They represent the Faculty of Business and Management (FPP) (31.25%), Faculty of Sports Science and Recreation (FSSR) (26.25%), Faculty of Applied Sciences (FSG) (20%), Faculty of Accountancy (FP) (16.25%) and Faculty of Computer and Mathematical Sciences (FSKM) (6.25%). Majority of them earn a Cumulative Grade Point Average (CGPA) between 2.00 to 2.49 (38.75%).

Table 2: Demographic of the Respondents

Variables		Number of Respondents	Percentage (%)
Gender	Male	45	56.25
	Female	35	43.75
Ethnicity	Malay	75	93.75
	Others	5	6.25
Age	Below 20 years	33	41.25
	Above 20 years	47	58.75
Faculty	Faculty of Business and Management (FPP)	25	31.25
	Faculty of Sports Science and Recreation (FSSR)	21	26.25
	Faculty of Applied Sciences (FSG)	16	20
	Faculty of Accountancy (FP)	13	16.25
	Faculty of Computer and Mathematical Sciences (FSKM)	5	6.25

Cumulative Grade Point Average (CGPA)	2.00 to 2.49	31	38.75
	2.50 to 3.00	23	28.75
	3.01 to 3.49	17	21.25
	3.50 and above	9	11.25

This study shows that two-third (30%) of the respondents who definitely intend to become self-employed are male. This means that six out of every ten male students intend to become self-employed. On the contrary, this number is less for female that is two out of every 10 respondents. Of the two-thirds of all those age above 21, 66.67% definitely intend to become self-employed following completion of their diploma. From the faculty aspect, majority of those who are keen to become self-employed are in the discipline of business and management (56.67%).

The Respondents' Family Influence and Past Experience

Table 3 illustrates approximately half of the respondents have a parent who run their own business. Of those who intend to become self-employed, this proportion represents almost half of the respondents group (50.28%). Thereby, this suggests a strong parental influence in intention to become self-employed. This study also shows that one-third (15%) of those who intend to become self-employed have some experience and exposure to business dealing at their earlier age. Many of them plan to do so immediately within the first two years following completion of their studies.

Table 3: Respondents' Family Influence and Past Experience

Variables		Number of Respondents	Percentage (%)
Parents run a business	Yes	39	48.75
	No	1	31.25
Have earlier experience in business	Yes	21	26.25
	No	59	53.75

The Respondents' View on University Courses and Start-Up Support

When compared to the information as illustrated in Table 4, it is clear that approximately 37.5% of the respondents are sure that the university courses offered are relevant and expect the university to provide support and assistance. However, 13.75% of them are not aware of business start-up support at their own institution. This result suggests that more works is required at a low and high level to publicise the provision of start-up support.

Table 4: Respondents' View on University Courses and Start-Up Support

Variables		Number of Respondents	Percentage (%)
Usefulness of university courses	Definitely	30	37.5
	Probably	22	27.5
	Probably not	11	13.75
	Definitely not	17	21.25
Aware of start-up support	Yes	37	46.25
	No	43	53.75

The Respondents' Entrepreneurial Intentions

Table 5 illustrates that there is considerable variance in the results to the statements relating to the entrepreneurial intentions construct at 5% level of significance. The challenge of creating a new business and founding a new business venture appear to hold considerably mean values for those students who intend to become self-employed. To this group of students, job security is relatively unimportant.

Table 5: The Respondents' Entrepreneurial Intentions

Variables	Statement	Mean Value
Entrepreneurial intent	I want to be my own boss	3.41
	I want the freedom to express myself in my own business	3.46
Entrepreneurial attitude	I would rather be my own boss than have a secure job	3.07
	You can only make big money if you are self-employed	2.45
	I would rather form a new company than be the manager of an existing one	3.08
	I relish the challenge of creating a new business	3.19
	I want to make money	4.11
Perceive support factors for respondents	Entrepreneurs have a positive image within society	3.03
	Qualified consultant and service support for new company is available	2.83
	The creative university atmosphere inspires me to develop ideas for new business	3.40
	My family encourages me to set up my own business	3.31
Locus of control	When everything goes right, I think that is mostly a question of luck	2.58
	I often feel that is just the way things are and there is nothing I can do about it	2.61
Risk-taking propensity	I like to try new things (for example, going to new places)	4.03
	When I travel, I tend to use new routes	2.92
	I have taken a risk in the last six months	3.51



Perceived barriers	Banks do not readily give credit to start-up companies	2.81
	The law is a barrier to running a company	2.80
	It is hard to find a business idea that has not been realized before	3.21
	I do not have the necessary skills to start my own business	2.84
	I lack the confidence to start my business	2.73
	The risks involved in setting up a business are too high	3.20
	I would struggle to raise the capital necessary to start a business	3.28

Table 5 illustrates that views on perceived support factors for respondents are significantly different for all questions in this construct. Those who definitely intend to become self-employed have more positive perceptions of support for enterprise and entrepreneurs than those who do not. The most sizeable differences in perception relate to university atmosphere (mean value = 3.40) and family support (mean value = 3.31). This suggests that these two indicators are important support factors for those who keen on becoming self-employed. Those who definitely intend to become self-employed perceive that they have more power to control actions than those who do not intend to do so.

In examining the risk-taking construct statements, it is clear that those who definitely intend to become self-employed display consistently higher risk-taking propensities (mean value = 4.03) than those who definitely do not intend to become self-employed. In exploring the perceived barrier construct, there are significant differences with those who definitely do not intend to become self-employed providing more negative perceptions of barriers than those definitely intend to become self-employed. It is clear that those do not intend to start-up lack the confidence to do so (mean value 2.73). In terms of those who definitely intend to become self-employed, it is considerably concern about financial issues (mean value = 2.81) as well as legal issues (mean value = 2.80).

The Respondents' Personality Traits

Table 6 shows the results of mean values to examine students' personality traits. In terms of gender, male students were found to score higher mean values in need for achievement, locus of control, self-efficacy, instrumental readiness, subjective norms and entrepreneurial intention as compared to the female students. Those male students who have some experience involving in business and have attended some courses or training on entrepreneurship indicated significantly high score mean values in need for achievement, self-efficacy, instrumental readiness, subjective norms and entrepreneurial intention. This may be due to the impact of the course content or the training underwent.

**Table 6:** The Respondents' Personality Traits

Variables		Mean	
		Male	Female
Differences in gender	Need for achievement (NAC)	5.21	5.14
	Locus of control (LC)	4.60	4.68
	Self-efficacy (SE)	4.43	4.17
	Instrumental readiness (IR)	4.23	3.96
	Subjective norms (SN)	4.22	4.12
	Entrepreneurial intention (EI)	4.48	3.98
Differences by attending courses or training	Need for achievement (NAC)	5.24	5.14
	Locus of control (LC)	4.64	4.66
	Self-efficacy (SE)	4.61	4.13
	Instrumental readiness (IR)	4.40	3.93
	Subjective norms (SN)	4.41	3.94
	Entrepreneurial intention (EI)	4.70	4.08

8. CONCLUSION

Generally, the male students seem to have stronger intention to become self-employed compared to female students. The confidence level of these male students is high especially when their families are involved in business. The students from FPP and with age above 21 years old are the group with stronger intention to become self-employed. The results also suggest that there is strong parental influence on the students' intention and those with past experience in business are more likely to start-up their business. Many students also show that they are not aware of the start-up support and feel the university courses offered might not have much bearing on their decision whether to venture into their own businesses. Since entrepreneurship is important as a very relevant instruments to promote economic growth for the nation's economies, more need to be done to promote new enterprises and business venture to infuse dynamism in the economic activity. The promotional effort should at least start-up at the university level. With more development of the entrepreneurship among the intellectuals, the researchers hope the university can continue to be a place to nurture young talents in entrepreneurial ventures and new business can continue to be the forefront motivator for the nation's economic development today.

REFERENCES

- [1] Davidsson, P. (2009). Continued entrepreneurship and small firm growth. Stockholm: The Economic Research Institute.
- [2] Katz, J. (2012). A psychological cognitive model of employment status choice. *Entrepreneurial Theory and Practice, Fall*, 29-47.
- [3] Bird, B. (2012). Implementing entrepreneurial idea: The case for intention. *Academic of Management Review, 13*, 442-453.
- [4] Ajzen, I. (2001). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes, 50*, 176-211.
- [5] Kruger, N. (2000). Strategic optimism: Antecedents of perceived probability of new venture success. Paper presented at The Academy of Management Meetings.
- [6] Bird, B. (2013). Demographic approaches to entrepreneurship: The role of experience and background, 1, 11-48.
- [7] Shapero, A. & Sokol, L. (2012). The social dimension of entrepreneurship. The



- Encyclopedia of Entrepreneurship. New York: Prentice Hall.
- [8] Katz, J. (2012). A psychological cognitive model of employment status choice. *Entrepreneurial Theory and Practice, Fall*, 29-47.
 - [9] Katz, J. (2012). A psychological cognitive model of employment status choice. *Entrepreneurial Theory and Practice, Fall*, 29-47.
 - [10] Ajzen, I. (2001). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 176-211.
 - [11] Shapero, A. & Sokol, L. (2012). The social dimension of entrepreneurship. The Encyclopedia of Entrepreneurship. New York: Prentice Hall.
 - [12] Ajzen, I. (2001). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 176-211.
 - [13] Shapero, A. & Sokol, L. (2012). The social dimension of entrepreneurship. The Encyclopedia of Entrepreneurship. New York: Prentice Hall.
 - [14] Robinson, P. B. & Sexton, E. A. (2008). Introduction to the special issue on corporate entrepreneurship. *Special Management Journal*, 11, 1-13.
 - [15] Kuratko, D. F. & Hodgetts, R. M. (2014). An empirical analysis of employed and unemployed job search behavior. *Industrial and Labour Relations Review*, 45, 680-691.
 - [16] Birch, H. F. (2007). Competing models of entrepreneurial intention. *Journal of Business Venturing*, 5, 150-185.
 - [17] Indari, N. & Kristiansen, S. (2013) Empirical studies of self-employment. *Journal of Economic Survey*, 13, 381-415.
 - [18] Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). Multivariate data analysis. 7th edition. New Jersey. Prentice Hall.



Availability of Online Literature on Politics – Administration Dichotomy in Malaysian Context

Azwan Ahzran Perman

Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA, Sabah Branch, Kota Kinabalu Campus, 88997, Kota Kinabalu, Sabah, Malaysia

*E-mail: azwan0574@uitm.edu.my

ABSTRACT

Politics-administration dichotomy is an important cornerstone in the study of Political Science and Public Administration. It deals with the separation of administration from politics, making public administration to be more business-like and in so doing avoiding political interference. The debate on its practices and practicality has been on-going for more than a century, starting from Wilson's conception of it in 1887 to the many scholars who have debunked or supported it throughout the centuries. Malaysia has a rich public Administration history just like any other country in the world, and the concept has been viewed from and through many perspectives from different countries. This study investigates the availability of materials pertaining to the concept in Malaysia, online, where it seeks to look into titles and topics that cover the concept. As a qualitative study, it observed the uses of key terms combination such as Politics-Administration Dichotomy and looked into their contexts, both in English and Malay, using major search engines. The result shows that there was a lack of materials pertaining to the concept. This study suggests that more studies regarding the concept need to be done in order to generate sufficient Malaysian perspective of it online.

Keywords: Online Literature; Search Engines; Politics-Administration Dichotomy; Public Administration; Malaysia

1. INTRODUCTION

Having a rich source of data and knowledge regarding any field is paramount in learning, understanding, predicting, creating and innovation in a particular field as knowing more and sharing more allows one to expand on the current knowledge and to be able to enrich knowledge [1,2]. There is a saying that marks the significance of the internet era; "if it is not on the web, it does not exist". Thus, in the age of digitalization, getting resources from the internet is effortless so much so that in the last decade the usage of "to google" has become commonplace [3].

Politics-administration dichotomy (PAD) or its derivative as a practice has been seen throughout public administration [4], despite many debunking it, arguing that the dichotomy in practice is faulty and unpractical, it still persists to exist [5,6]. The politics-administration division was first proposed by Woodrow Wilson in 1887. It persists today as an influence with practitioners and shapes their leadership practices. The notion that the administration of policy should be separate from politics was an influential idea in early public administration theory [16]. Politics-Administration Dichotomy is a fine niche in Public Administration, where debates around it actively happens [6,7].



This study observes the relative availability of literature regarding PAD in the Malaysian context in the internet. PAD as a concept emerged in Europe in the 19th century and was further developed by many scholars especially Wilson in 1887. Through the centuries, there have been many perspectives and viewpoints. Those of American, European, African and certain Asian perspectives such as the Chinese are easily available in the internet. Therefore, rather than being dead, it is being discussed extensively. Perspective is important because it allows for a plethora of ideas to be developed and expanded. The main motivation for this study is the difficulty in preliminary searches regarding the topic in a Malaysian context. In general, Malaysia has a rich public administration history so does the relationship of politics within the administration [8]. This is an interesting subject to be studied upon under the concept of PAD. Therefore, the main objective of this study is to look into the availability of materials pertaining to the concept in Malaysia in the internet. It looks into titles and topics that cover the concept by using key terms such as Politics-Administration Dichotomy and looking into their contexts. It is hoped that the result of this study will be able to answer this question: to what extent is Politics-Administration Dichotomy literature in Malaysian context available?

2. SIGNIFICANCE OF STUDY

This study is significant in the sense that it will be able to show results regarding the state of literature regarding Politics-Administration Dichotomy in Malaysian context. It will be able to demonstrate whether it is a theme in Malaysia's politics or administration studies or otherwise. It is still a matter of debate to what is actually a dichotomy in a sense within Politics-Administration Dichotomy [6,9]. While some view it as a complete separation, others view it as partial [6] with some do not even believe it could be separated [10]. The concept can be an insight coming from the Malaysian side. It would be a significant addition towards the body of knowledge and might be able to continue the debate on its status. Besides, if there appears to be a lack of studies in this subject matter in Malaysia. This study would be one of the pioneering studies regarding it. Thus, this study will be the stepping stone for the exploration of the study in Malaysia.

3. LITERATURE REVIEW

Politics

According to the Oxford Dictionary, politic is defined as being an action that is 'judicious' and 'expedient'. This definition gives the impression that politics revolves around a planned and well-thought action accompanied by beneficial and self-serving connotations. This is supported by other definitions of politic. As an instance, Harold D. Laswell (1936) defines it as "who gets what, when, how". Laswell (1936) explores on the many explanations with politicians being driven by political positions, resource distribution and out-competing their competitors [11]

Public administration

Public Administration has its integral part in many kingdoms and empire within the human history [12]. Since the rise of nation-states, it has made way for Public Administration [13]. Public Administration is one aspect of cooperation amongst humans [10]. The public sector comprises the general government sector and agencies [14], where they differ in terms of efficiency and accountability from the private sectors [14]. For Malaysia, it has inherited a fairly efficient system from British, which covers a rich history of modern Public Administration [8,15].



Politics-administration dichotomy

One of the most important and enduring theory in public administration is politics-administration dichotomy model. The politics-administration division that was first proposed by Woodrow Wilson in 1887 persists until today as an influence with practitioners and shapes their leadership practices. It was also expended further by Goodnow in 1900 on his book, where he believes in separating politics and administration through a legal separation.

That administration of policy should be separate and distinct from politics was a formative idea in early public administration theory [16]. It has been useful for showing the limit of public administration as an intellectual field and for declaring the relationship between elected officials and administrators in a democratic society [17]. Wilson's dichotomy is intended to separate administration from politics and defined as a more scientific endeavour apart from political influence so that it could be viewed as a legitimate profession. This is where Wilson sees public administration as a field of business rather than politicking [7,18]. In the few decades after it was proposed, many experts have seen this dichotomy as not being able to be fully practiced and to some extent faulty [5,19,20]. That said, politics plays an integral part of complementing public administration [5,9]. This has led an inquiry of the idea by practitioners and academicians [6,12]. Yet, the complementary or dichotomous status of politics and administration is still a hot issue to be debated about [4].

Dichotomy perspectives

Originated in Europe during the 19th Century, it was further developed by Wilson and Goodnow [4]. It can be defined as a professional and business-like public service rather than an inclination to political activities [21]. Wilson was an accomplished academician who later served as the 28th President of the United States of America from 1913-1921. When he wrote his essay that promoted the idea of a dichotomy, it was seen from an American perspective, so did scholars after him such as Goodnow (1900) and Waldo (1955), where the expansion of the industries and economies were considered as part of it [4].

Moving forward, it can be seen that the exploration of the concept within Chinese perspectives warrants a consideration as well since China of today could be seen as similar to the early days of American public administration with evolving industries and economy [4]. However, the dichotomy cannot be the dominant paradigm in China due to its lack of political and administrative integration [4]. As for South African perspectives, scholars have discussed of the dichotomy in the sense of having new protocol to adhere the issue [22]. Nigerian scholars, for example, suggested constructive involvement of the permanent executive into policy making [23].

Search Engines

There are two types of search engines: general-purpose and topic-specific. General purposes are like Google or Yahoo!, while topic-specific ones can be represented by academic search engines [24]. Typically, a search engine is constructed of a set of spiders, a repository of Web page, an indexer search indexes, a query engine, and a user interface [24].

When a query is done on a search engine, it will trigger the Spiders. Spiders are programs that retrieve Web pages for search engines using HyperText Transfer Protocols (HTTP). The spiders fetch documents, indexer, then read these documents and create an index based on those

words. Each search engine uses a proprietary algorithm so that only meaningful results are returned for each query [25].

Literature on the Internet

The internet allows easy access to information [3]. The internet also has changed the way one uses online scholarly material [26]. The worth of literature reviews is determined by the literature search process and plays a central role in scholarship [2]. It is to be noted however that existing documents or research may not be available on the internet. They are called grey literature. It is defined as any documentary material that is not commercially published for example technical reports, unpublished studies, working papers with limited distribution and conference proceedings. These are generally not included in bibliographical retrieval system and business documents [27,28]. The search of literature on the internet could also be hindered by non-free providers who charge a certain amount of fee for access [29].

4. METHODOLOGY

This study looks into the availability of online literature pertaining to the concept of politics-administration dichotomy in Malaysia. It is a qualitative study where observance of the result through the internet search engines will be carried out which is a search engine results review. Literature has a few definitions. Among others, it can be defined as the information relating to a subject especially information written by specialists [30]. Pursuant to that, this study defines and confines literature towards studies and research that dwells into the study of politics-administration dichotomy in Malaysia. The combination of the terms both in English and Malay are used to look into the internet results. This combination refers to “Politics-Administration Dichotomy” and “Malaysia”.

Furthermore, the combination uses terms and words that are from the same language. No language mixture is used. As the study suggests, only literature containing the terms and especially the context is chosen as proper result searches in this study. The internet search engines used are based on academic engines. They are Jstor, Web of Science.com, Science Direct, ProQuest, Researchgate.net, Academia.edu, Emerald.com, Microsoft Academic, Google Scholar and the conventional Google search. These internet search engines are selected for their ease of access and access via University’s E-resources (UiTM). Since these internet search engines work in terms of showing results with the most similar result with the searchers [25], only the top 10 pages of results from each search engines are observed. A tabular table is created to reflect the search findings of the search engines. The internet was accessed on 5th February 2020 from 10.05 a.m-12.35 p.m.; 2.30 p.m-5.30 p.m. and 6th February 2020 from 11.05 a.m. - 12.30 p.m.; 2.50 p.m.- 4.10 p.m. Results that carried the premeditated terms and context were observed.

5. FINDINGS

After the results of the searches were observed, they were then keyed in into a tabular form as depicted in Table 1.0. The following table shows the results using the combination of the terms both in English and Malay. As mentioned before, this combination refers towards “Politics-Administration Dichotomy” and “Malaysia”. It is noted that the combination used terms and words that were from the same language. No language mixture was used.

Table 1: Politics-Administration Dichotomy, Malaysia Titles/Topics with context

Literature Search Engines	Key words results
1. Jstor	<i>None relevant/available</i>
2. Web of Science.com	<i>None relevant/available</i>
3. Science Direct	<i>None relevant/available</i>
4. ProQuest	<i>None relevant/available</i>
5. Researchgate.net	<i>None relevant/available</i>
6. Academia.edu	<i>None relevant/available</i>
7. Emerald.com	<i>None relevant/available</i>
8. Microsoft Academic	<i>None relevant/available</i>
9. Google Scholar	<i>None relevant/available</i>
10. Google Search (Non-Academic Focus)	<i>None relevant/available</i>

All the search engines produced multiple results. Within the Malaysian context, there were some articles written about it, but mainly it was pointed out in a news article suggesting reforms. a few blog postings discussed the concept but no research on it, and some written paper works on it, however they appeared to be assignments by students which were not published on any conference or journals. These were mainly the results via Google search. The rest of the Academic-based search engines showed results but mainly having none of the contexts that are looked after in this study.

Looking at the results, there were limited literature regarding Politics-Administration Dichotomy within Malaysian context.

6. DISCUSSIONS

The finding shows that there seems to be a lack of literature regarding Politics-Administration Dichotomy with a Malaysian context in the internet. All of the academic and non-academic search engines were not able to get proper results within the parameters set. This could possibly due to the confinement of context in this study, as mentioned in the methodology section of this study. Another reason is that the concept is merely not popular enough to warrant a study regarding it, despite the rich history of public Administration in Malaysia. Perhaps, there were documents or work of related literature in Malaysia that were in hard copy that was not uploaded online. This can be defined as grey literature [27,28]. Thus, it can be safely argued that the maxim that says ‘if it is not in the web, it does not exist’ most probably cannot be held as definitive.

Moreover, the availability of the literature is not as rich as other field of study such as Business or Management in Malaysia. It is probably due to the limited amount of universities faculties studying about it in Malaysia, thus the lack of studies on it. Currently, there are only a handful of Universities in Malaysia that have a dedicated faculty in Politics, Public Administration or both. This literature availability study could be amongst the first in Malaysia that discusses about the concept and the context.



7. RECOMMENDATIONS

For future research, it is recommended that physical observation and searches through libraries throughout Malaysia be made with a focus on Universities that has a dedicated faculty in Politics, Public Administration or both. It is hoped that it will be able to uncover the grey literature regarding this concept. The expansion of the search engines could also be added into future research. A part from that, the limitations that confine this study could be widen in order to ensure results are properly included in the finding.

From the theoretical side, a novel study that could reflect the Politics-Administration Dichotomy in Malaysia should be done to enrich the body of knowledge and to expand further studies regarding it, with a heavy context of a Malaysian perspective.

8. CONCLUSION

The idea of Politics-Administration separation that arises from Wilson's essay in 1887 has opened up the gate for the concept of Dichotomy in politics and administration. It has persisted until this day. The novelty of this study lies in the fact it explored Politics-Administration Dichotomy in the Malaysian context, for which literature was still lacking in Malaysia. Future studies regarding it will help to shed lights into the complexity of politics and administration dichotomy in Malaysia, among other things.

As this study suggests, the lack of the research in this field in Malaysia, requires more work on it to ensure that the gap that exists in the Malaysian context is bridged properly. As the debate regarding the Dichotomy continues, a novel perspective from Malaysia will at least help to contribute towards enriching it.

ACKNOWLEDGEMENT

I would like to wish my gratitude to UiTM Sabah for their support in our academic journey and our faculty's leader Dr. Asri Salleh at UiTM Sabah for his encouragement.

REFERENCES

- [1] Xiang, J., & Nakamori, Y. (2006). Knowledge Management in Academia: Survey, Analysis and Perspective. *Int. J. Management and Decision Making*.
- [2] Brocke, J. v., Simons, A., Niehaves, B., Niehaves, B., Reimer, K., Plattfaut, R., & Cleven, A. (2009). Reconstructing The Giant: On The Importance Of Rigour In Documenting The Literature Search Process. *European Conference on Information Systems 2009 Proceedings* (p. Paper 161). ECIS 2009.
- [3] Brophy, J., & Bawden, D. (2005). Is Google enough? Comparison of an internet search engine with academic library resources. *Aslib Proceedings*, 498-512.
- [4] Guo, S. (2019). Political-Administrative Dichotomy: its sources, Logic and Deates. *Open Journal of Social Sciences*, 356-365.
- [5] Svara, J. H. (2001). The Myth of the Dichotomy: Complementarity of Politics and Administration in the Past and Future of Public Administration. *Public Administration Review*, 176-183.
- [6] Svara, J. H. (2008). Beyond Dichotomy: Dwight Waldo and the Intertwined Politics Administration Relationship . *Public Administration Review*, 46-52.
- [7] Berman, E. M. (2008). *Encyclopedia of Public Administration and Public Policy*. Boca



- raton: Taylor & Francis Group, LLC.
- [8] Berman, E. M (2011). *Public Administration in Southeast Asia: Thailand, Philippines, Malaysia, Hing Kong and Macau*. London: Taylor and Francis Group, LLC.
 - [9] Tahmasebi, R., & Musavi, S. (2011). Politics-Administartion Dichotomy: A Century Debate. *REVISTA ADMINISTRATIE SI MANAGEMENT PUBLIC* , 130-143.
 - [10] Waldo, D. (1955). *The Study of Public Administration*. New York: Doubleday and Company Inc.
 - [11] Lasswell, H. D. (1936). *Politics; who gets what, when, how.*. London: McGraw-Hill Book Co.
 - [12] Fredrickson, H. J., Smith, K., Larimer, C., & Licari, M. (2012). *The Public Administration Theory Primer*. colarado: Westview.
 - [13] Vigoda', E. (2002). *Public Administration an interdisciplinary critical analysis*. New York: Marcel Dekker, Inc.
 - [14] Lane, J.-E. (2005). *Public Administration adn Public Management, The Principal-Agent Prespective*. New York: Routledge.
 - [15] Moten, A. R. (2013). *Government and Politics in Malaysia 2nd Edition*. Petaling Jaya: Cenage Learning Asia Pte Ltd.
 - [16] Grant, B. (2014). Leadership and the Politics-Administration. Florida, United States of America: Florida State University Libraries.
 - [17] Svara, J. H. (1998). The Politics-Administration Dichotomy Model as Aberration. *Public Administration Review*, 51-18.
 - [18] Wilson, W. (1887). *The Study of Administration*. The Academy of Political Science.
 - [19] Svara, J. (1999). Complimentary of Politics and Administration as a Legitimate Alternative to The Dichotomy Model. *Sage Publications, Inc., Administrative & Society*.
 - [20] Levy, A. (2009). The Craft of Bureaucratic Neutrality ,Is the Politics-Administration Dichotomy dead? *Public Administration Review*, 145-147.
 - [21] Klassen, T. R., Cepiku, D., & Lah, T. (2017). *The Routledge Handbook of Global Public Policy and Administration*. New York: Routledge Taylor and Francis Group.
 - [22] Mafunisa, M. (2003). eparation of politics from the South African public service: Rhetoric or reality? *Journal of Public Administration*, 85-101.
 - [23] Okudulo, I., & Ojakorotu, V. (2019). Politics-administration conundrum in Africa: dichotomy or nexus for sustainable environmental security in Lagos State, Nigeria. *African Renaissance*, 263-289.
 - [24] Wong, M. C., Zhou, Y., Qin, J., & Chen, H. (2010). Evaluating the Use of Search Engine Development Tools in IT Education. *Journal of the American Society for Information Science and Technology*, 288-299.
 - [25] Liang, J., & Wu, P. (2012). *Applied Mechanics, Mechatronics Automation & System Simulation*. Hangzhou: Trans Tech Publications Ltd,.
 - [26] Odlyzko, A. (2002). The rapid evolution of scholarly communication. *Learned publishing*, 7-19.
 - [27] Mathews, B. S. (2019). Internet Resources: Gray literature : Resources for locating unpublished research. *College and Research Libraries News*, 125-129.
 - [28] L, M., Tugwell, P., & Moher, D. (2000). Does the inclusio of grey literature influence estimates of intervention effectiveness reported in meta-analyses? *The Lancet*, 1228-1231.
 - [29] Lawrence, S. (2001). Free online availability substantially increases a paper's impact . *Recuperado em*19.
 - [30] Cambridge Dictionary. (2008). *Cambridge Advanced Learner's Dictionary*. Singapore: Cambridge University Press.



Freedom of Movement in Malaysia: The Development of The Underrated Rights

***Nur Hafidah Abd Kadir, Umar Mahfuz Sulaiman, Muhammad Haziq Mansor,
Aireena Dini Izzaty Samsul Anuar, Nur Akrimi Mathwa Ahmad Zamri, Muhammad
Al-Fateh Azmi**

Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus
Dengkil, 43800 Dengkil, Selangor, Malaysia

*E-mail: nurhaf0036@uitm.edu.my

ABSTRACT

Personal liberty, equality and freedom of religion are among popularly debated human right issues fought by human rights activists all over the world. Unlike those fancy fundamental rights, freedom of movement did not get much attention and seldom be overlooked and forgotten. However, due to the unprecedented pandemic Covid-19, people are starting to realize that they are taking these rights for granted as they are not allowed to freely move around anymore. In Malaysia, freedom of movement is provided by the Federal Constitution under Art. 9(2). It is important to note that Art. 9(2) only guarantees the right to move freely within the country and does not cover the right to have a passport and to travel abroad. However, the landscape has changed recently as the Movement Control Order (MCO) was imposed by the government in March 2020 restricting the citizen's right to move freely within country under the Prevention and Control of Infectious Diseases Act 1988 and the Police Act 1967. Many fundamental rights were inevitably violated especially freedom of movement due the implementation of MCO. In the absence of comprehensive literatures on this aspect, this paper analyses the components of freedom of movement which include restriction against Malaysian citizen to leave country and freedom to move freely within country. This paper also exemplifies the rationales behind the restriction of movement imposed by the executive body in this democratic government of ours.

Keywords: Freedom of movement; human rights; Movement Control Order; travel ban

1. INTRODUCTION

Freedom of movement is envisaged in Art. 13 of the Universal Declaration of Human Rights (UDHR). Article 13.1 states that "Everyone has the right to freedom of movement and residence within the borders of each State" whereas Article 13.2 provides that "Everyone has the right to leave any country, including his own, and to return to his country." Similar with UDHR provisions, in Malaysia, Article 9 of the Constitution provides for prohibition of banishment and freedom of movement, standing as one of fundamental liberties guaranteed by the Constitution. Due to the limitation of this research paper, the scope of discussion will only confine to freedom of movement.

Generally, there are three main components under freedom of movement namely; the right to leave the country, the right to move freely within a country and the right to enter the country. Article 9(2) of the Federal Constitution enshrines that every citizen has the right to move freely throughout the Federation. But does this right applicable to the right to leave country?



2. THE RIGHT TO LEAVE COUNTRY

The right to leave country is inscribed in most major human rights instruments and is intended to ensure that people can move freely, including out of the country they are in, without unjustified obstacles. In order for the right to leave one's country to be effective the state must issue the individual with travel documents, in particular a passport [Elspeth Guild, 2013].

Section 2(2) of Passport Act 1966 provides that 'every person leaving Malaysia for a place beyond Malaysia shall, if required so to do by an immigration officer, produce to that officer a passport'. In Malaysia, passport is a document issued in the name of His Majesty the Yang Dipertuan Agung on the responsibility of the Minister of Home Affairs to a named individual, intended to be presented to the Governments of foreign nations. However, it should be emphasized that our Federal Constitution does not confer on the citizen a right to a passport [*Loh Wai Kong v the Government of Malaysia*, 1979]. The government cannot be compelled to grant a document pledging its honour to any and every person and to vouch for the respectability of every one wishing to go abroad because the right to a passport is merely a privilege, not a right [*Loh Wai Kong v the Government of Malaysia*, 1979].

Nevertheless, the exercise of this discretion is subject to review by a court of law, as in the case of other discretionary powers. In the case of *Loh Wai Kong v the Government of Malaysia*, a Malaysian passport holder sued the government alleging the discretionary power exercised in refusing the issuance of new passport was violating his fundamental right to travel abroad. The court invoked Article 5 of the Federal Constitution to interpret 'personal liberty' as concerning the person or body of the individual and does not confer on the citizen a fundamental right to leave the country. Similar legal actions were taken against the government recently raising the issue of the right to travel abroad [*Pua Kiam Wee v. Ketua Pengarah Imigresen Malaysia*, 2018] and [*Zulkiflee SM Anwarul Haque v. Ketua Pengarah Jabatan Imigresen Malaysia*, 2018]. However, the courts in these cases unanimously upheld the decision made by the Federal Court in the case of *Loh Wai Kong* where freedom of movement envisaged in Art. 9(2) only guarantees the citizen to enter Malaysia and to move freely within the federation and to reside anywhere therein, subject to restrictions as Parliament may by law impose. The constitution is silent as to the citizen's right to travel abroad hence it is safe to say that the citizen had no constitutional right to travel to foreign countries.

Art. 9(2) of the FC permits Parliament to make law to limit freedom of movement based on four grounds namely security, public order, public health or the punishment of offenders. For example, Sec 3(2) of the Immigration Act 1959/63 vested executive powers to the Director General of the Immigration Department to have general supervision and direction of all matters relating to immigration throughout Malaysia. Such powers are including halting individuals from boarding a flight or preventing them from getting any immigration facility [*Zulkiflee SM Anwarul Haque v. Ketua Pengarah Jabatan Imigresen Malaysia*, 2018]. In 2016, the Immigration Department reveals that 573,188 people; about 2% of Malaysians have not been allowed to leave the country for numerous reasons namely failing to pay National Higher Education Fund Corp (PTPTN) loans, failing to pay taxes, declared a bankrupt, and involving with criminal offences [Yuen Meikeng, 2016]. The Immigration Department's travel blacklist is integrated with various agencies including the National Higher Education Fund Corporation (PTPTN), the Malaysian Insolvency Department (MDI), Inland Revenue Board (IRB), and the Royal Malaysian Police. These agencies will add and withdraw the names of debtors in the integrated system based on the cases [Yuen Meikeng, 2016]. It is observed that these agencies have the power to do so as provided by law passed by the Parliament.



The National Higher Education Fund Corporation (PTPTN)

The National Higher Education Fund Corporation or known as (PTPTN) was established with the objective of offering educational loans to students wishing to pursue their studies at local institutions of higher education in Malaysia [Muhammad Ridhwan Ab. Aziz, 2014]. Due to the increasing of financial constraints arising from low repayment rates, PTPTN has taken the initiatives steps to implement several mitigation measures starting from 2004 and one of them is blacklisting PTPTN defaulters and preventing them from leaving the country [Ong Kian-Ming, et. al, 2016]. According to the deputy CEO of PTPTN, Mastura Mohd Khalid, travel bans are PTPTN's most successful method of getting loans from debtors, with more than two-thirds making payments after the ban [Yuan Meikeng, 2016].

Pursuant to Section 22A(1) Perbadanan Tabung Pendidikan Tinggi Nasional Act 1997, the Chief Executive may issue certificate to the Inspector General of Police or the Director General of Immigration to prevent recipient student from leaving Malaysia if the student is about or likely to leave Malaysia without paying the defaulted loan. However, if the student is able to prove via a written statement that the loan has been paid, then he may be allowed to leave the country (Sec. 22A(3) of the PTPTN Act 1997). It is worth mentioning that Clause (4) to the same section provides exclusion clause to exclude judicial review against the government for anything lawfully done in that section.

Even though the travel ban to the PTPTN loan defaulter is done according to the law but many people were not pleased with that [Muhammad Ridhwan Ab. Aziz, 2014]. As an effort to win the voters' heart, Pakatan Harapan during the last 14th General Election was overwhelmingly aimed to lift the travel ban on lenders who have refused to reimburse the government's debt. Honouring the manifesto, around 433,000 PTPTN loan defaulters' names were excluded from blacklist as the travel ban was lifted in June 2018 [Suhaila Anuar, 2018].

Malaysian Insolvency Department

Another agency integrated with Immigration Department travel blacklist is the Malaysian Insolvency Department where the Department imposed restriction to travel abroad against a bankrupt person [Malaysian Department of Insolvency, 2013]. Bankruptcy is a civil action that exists when a person could not resolve his or her debts. It is a mechanism in which a debtor is declared bankrupt by following a court order against him or her, known as the High Court Adjudication Order. Sec. 38(1)(c) of the Insolvency Law 1967 provides that "the bankrupt shall not leave Malaysia without the previous permission of the Director General of Insolvency or of the court". The word 'or' indicates either the DG of Insolvency or the court has the authority to grant permission to a bankrupt person to leave the country as in the case of *In the Matter of Lau Hieng Yee, A Bankrupt* [2000] 1 MLJ 59.

In addition, one must note that Sec. 38(1)(c) is not applicable if the bankrupt person is still owing tax to the Inland Revenue Board as decided in the case of *Lim Moon Heng v The Government of Malaysia & Anor* [2002] 2 MLJ 499. Sec. 104(1) of the Income Tax Act confers the power to the Director General of Inland Revenue Board (DGIR) to issue a certificate to the Director General of Immigration requesting that a person be prevented from leaving Malaysia unless and until he has paid his taxes.



Inland Revenue Board

The New Straits Times reported that as of May 2016 a total of 116,836 Malaysians were barred from leaving the country after failing to pay their income tax totalling RM2.55 billion [Hasshini Kannan, 2016]. Another 9,665 Malaysians were also prevented from leaving the country for failing to pay their real property gains tax which according to the same report amounted to RM150 million in the same period [Hasshini Kannan, 2016]. As has been discussed earlier, sec. 104(1) of the Income Tax Act 1967 provides that, the DGIR, if he is of the opinion that a person is about or likely to leave Malaysia without paying all the tax payable by the person, is authorized to issue a certificate requesting the Director of Immigration to prevent the person from leaving Malaysia. This certificate is known as the Stoppage Order and also applicable to Real Gains Property provided under Sec. 22(1) of the Real Gains Property Act 1976 [Inland Revenue Board Malaysia, 2020]. Here, we can say that both provisions empower the DGIR to issue the certificate for the purposes of collecting and recovering assessed tax from the defaulters and the issuance of such certificate was one of the authorized modes to recover the tax due [Lim Moon Heng v. Govt. of Malaysia, 2002]. If the DGIR had acted unreasonably in issuing the certificate and that the action was not in consonant with the purpose of Sec. 104(1) of the Act, he in his capacity as the DGIR will be liable for tort and negligence as in the case of *Ronald Beadle v Hamzah HM Saman & Ors* [2007] 3 MLJ.

Similar with Sec. 104(1) of the Income Tax Act 1967 and Sec 22(1) of the Real Gains Property Act 1976, Sec. 49(1) of the Goods and Services Act 2014 and Sec. 17A of the Customs Act 1967 allow the DG of Customs to issue a certificate requesting the DG Immigration to prevent any person where tax is due and payable from him from leaving the country [Kan Kok Houw v Ketua Pengarah Jabatan Imigresen, 2019]. It should be stressed that the Goods and Services Act 2014 had been repealed by the Good and Services (Repeal) Act 2018 but the liability may be enforced or any tax due may be collected under the repealed Act, as if the repealed Act had not been repealed pursuant to Sec. 4 of the same Act.

The High Court judge in the case of *Ng Poh Hwa v Ketua Pengarah Kastam & Ors* [2018] 1 LNS 1288 highlighted that the very authority who has the power to issue the order to bar the applicant from travelling overseas rests with the Director General (DG) of Immigration, not the person who issue the certificate requesting the travel ban i.e; DG of Insolvency and DG of Customs. However, by virtue of Sec. 59A of the Immigration Act 1959/63, the decision of the Director General of Immigration in imposing such power is not reviewable as was upheld by the Federal Court in the case of *Sugumar Balakrishnan V Pengarah Imigresen Negeri Sabah & Anor* [1998] 3 MLJ 289 and reaffirmed with *Ng Poh Hwa v Ketua Pengarah Kastam & Ors* [2018] 1 LNS 1288. The language in Sec. 59A is explicit with respect to the exclusion of the judicial review by any court of any act or decision made by the Minister, Director General or the State Authority under the Act except for non-compliance of any procedural requirement [Sugumar Balakrishnan v. Pengarah Imigresen Negeri Sabah, 1998].

Be that as it may, a number of applications for the judicial review were made against the decision made by the DG of Immigration because of the travel ban imposed. Most cases are involving travel ban against those with criminal offences or involving with political issues.

Royal Malaysian Police

In Malaysia, those who are involved in criminal cases or having pending criminal charges may be prohibited from traveling abroad by the Immigration Department albeit possessing a

passport. According to Datuk Seri Zahid, as at 2016, 520 are on the blacklist for security offences and another 507,782 for other offences [Nicholas Cheng, 2016]. It is an established fact that the immigration has power to defer an application for renewal of passport of a criminal offender upon advice by the Royal Malaysian Police as in the case of *Loh Wai Kong v. Government of Malaysia*, the applicant who was charged for two offences of forgery for the purpose of cheating under section 468 of the Penal Code was refused of the application of renewal of his passport.

The Police Act 1967 is silent on the power of the IGP to exercise such executive power but based on standard practice, the IGP will write a letter to the DG of Immigration informing that the person who bears the name given is under criminal investigation. The DG of immigration will then issue an order to prevent the names listed from leaving the country [Zulkiflee SM Anwarul Haque v. Ketua Pengarah Jabatan Imigresen Malaysia, 2018].

Travel ban against Political Figures

Amnesty International in its public statement in 2017 reported that Malaysian authorities has been using open-ended arbitrary travel bans to threaten and restrict the movement of political figures and human rights defenders for example the then MPs Opposition, Tony Pua, cartoonist Zunar, Bersih 2.0 chairwoman, Maria Chin Abdullah, and PKR's Rafizi Ramli to name a few [Amnesty International, 2017]. It is worth mentioning that the immigration department has introduced this restriction few years back in a move to safeguard this country's image [The Star, 2016]. All of these political figures were dissatisfied with the travel ban especially because they were not provided any reasons for the restriction. Hence, they brought the matter to the court for a judicial review. In 2017, the Malaysian Court of Appeal dismissed the opposition Member of Parliament Tony Pua's challenge against his 2015 travel ban and ruled that the government has absolute discretion to bar any citizen from travelling abroad without giving any reason or notice [Pua Kiam Wee v. Ketua Pengarah Imigresen Malaysia, 2017]. The Court also ruled that holding a passport was a privilege and that the Constitution does not protect the right to travel overseas.

As reported by Amnesty International, the ruling may provide cover for the government to arbitrarily impose or expand travel bans targeting political opponents and human rights defenders [Amnesty International, 2017]. However, the landscape of the decision might change when the Federal Court allowed former Bersih 2.0 chairman Maria Chin Abdullah to appeal against the decision of the immigration director-general that stop her from leaving Malaysia three years ago recently. According to Lawyer, Datuk Gurdial Singh Nijar, who represented Chin, said the application would enable the Federal court to revise the previous decision that empowers the Director-General to block citizens abroad. The date of the trial has been set but yet to be commenced [Bernama, 2019].

3. RIGHT TO MOVE FREELY WITHIN COUNTRY

Right of Malaysian citizen to enter into Sabah and Sarawak

Citizens in a country would normally have an equal freedom of movement within their own country as they live in the same defined territory. However, due to the privileges given to the East Side of Malaysia by the Federal Constitution, it is a different story for Malaysia. Under Art. 9(3) of the Federal Constitution, Parliament may impose restrictions on the rights of West Malaysians to move or reside in Sabah and Sarawak [Shad Saleem Faruqi, 2019]. This is



supported with Part VII of the Immigration Act 1959/1963 on Special Provisions for East Malaysia. The states of Sabah and Sarawak have the right to deny entry to any non-residents of the East Malaysian as they are required to get permits as provided in Sec. 66(1). They have to fill up an immigration form, and would then be granted a 90-day pass.

It is important to note that the Act does not restrict legitimate political activities nor to curb representatives of the Federal government from carrying out their duties. Section 67 and 68 of the Act expressly permits such groups. However, several politicians from what was previously the opposition have been barred from either Sabah or Sarawak. These include the DAP's Tony Pua and Lim Kit Siang, PKR's Nurul Izzah Anwar and Datuk Seri Azmin Ali, and Sabah STAR president Datuk Dr Jeffrey Kitingan [Bernard Cheah, 2018]. According to Eric Paulsen, the Executive Director of Lawyers for Liberty, the practice of barring political opponents was clearly politically motivated, irrational and a blatant abuse of immigration powers, as well as the 18-point agreement between Sarawak and Malaya before the formation of Malaysia in 1963 [The Malaysian Insider, 2015]. This policy which contravenes the freedom of movement guaranteed in Article 9 of the Federal Constitution ought to be reviewed.

Freedom of Movement during Movement Control Order

The Movement Control Order (MCO) was firstly introduced on 18 March 2020 as Malaysia's first response towards the upscaling threat of the Covid-19 virus. This period of time was known as Phase One of the MCO where during this phase, all offices and private premises were ordered to shutdown with the exception for essential businesses such as hypermarkets and the restriction also banned any cultural, social, religious or sports events as a mechanism to prevent mass gathering and movement from happening on a nation scale. The immediate restriction also banned Malaysians to travel overseas which meant that no one from abroad was getting into the country which meant for the returning Malaysians, they had to go health checks and self-quarantine for 14 days as part of the guideline by the Health Ministry and travelling between states also now needed to be with the approval of police station chiefs and only with reasons of important matters [Cameons, 2020].

On 1 April 2020, began the second phase of the MCO with an increase in the restrictions which include that supermarkets and restaurants can only start operating beginning at 8 am till 8 pm and which now can only be done by one person (Jr, 2020), a new travel limit imposed by the government where the limit distance for a person to buy food was only 10 kilometers with the exceptions of emergencies and a stricter enforcement for those who disobey the restrictions where the cases could be investigated according to Sec. 7(1) of the Prevention and Control of Infectious Diseases Regulations 2020. This shows that the government has become stricter in the enforcement of the MCO and has taken more precautionary steps to fight the war against Covid-19.

The MCO continued after the two weeks of phase 2 with phase 3. There was not much of added new restrictions in this phase since phase 2 has worked quite well in helping Malaysians to obey the MCO. However, during the phase 4 of the MCO, some of the restrictions has been loosened or relaxed such as a buying the groceries now could be done by two people and few sectors were allowed to continue operating such as constructions and car workshops. The soothing of the regulations is even drastic in phase 5 where the government announced that the MCO will become Conditional Movement Control Order (CMCO) which in this phase more businesses and industries are allowed to re-open (Lim, 2020).



The MCO is enforced under two Acts namely the Prevention and Control of Infectious Disease Act 1988 (PCIDA) and the Police Act 1967. Due to the implementation of MCO, sec 11(1) of the PCIDA empowered the following subsidiary legislation to be gazetted; Prevention and Control of Infectious Diseases (Declaration of Local Infected Areas) Order 2020, gazetted on 17 March 2020 ("PCID Order") and Prevention and Control of Infectious Diseases (Measures within the Infected Local Areas) Regulations 2020, gazetted on 18 March 2020 ("PCID Regulations"). Both the PCID Order and the PCID Regulations have effect from 18 March 2020 until 31 March 2020 ("Restricted Period"). These subsidiary regulations prescribe the measures to be taken to control or prevent the spread of infectious disease within or from an infected local area. Such measures include directing any person or class or category of persons to subject themselves to; a) treatment or immunization; b) isolation, observation or surveillance; or c) any other measures considered to be necessary.

In addition, under the Police Act 1967, the police may take lawful measures and actions towards the citizens that do not obey the order given by the government. For example, the police may execute roadblocks against the road users to restrict them from travelling across states as empowered by Sec. 26 (1) of Police Act 1967. Sec. 26(1) provides that "Notwithstanding anything contained in any other law, any police officer may, if he considers it necessary so to do for the maintenance and preservation of law and order or for the prevention or detection of crime, erect or place or cause to be erected or placed any barriers on or across any public road or street or in any public place in such manner as he may think fit; and any police officer may take all the reasonable steps to prevent any person from passing or any vehicle from being driven past any such barrier."

4. CONCLUSION

It is clear that the restriction of movement imposed is only allowed if it is for security protection, public safety, public order and punishment [Art. 9(2) of the Federal Constitution]. The rationales behind the restriction are justifiable for example restriction to travel abroad against those involved in criminal offences seems necessary to ensure safety of the people. Meanwhile, the travel ban imposed by the government for the PTPTN defaulters is proven to be the best instrument for the government to recover bank their money. In addition, when the immigration department enforced a travel ban ruling against those who disparage the government including political figures and human rights defenders, it appears to be as an effort to safeguard the country's image. As for Sabah and Sarawak, they are exercising their privileges provided under the Immigration Act 1959/63 by restricting outsiders in order to keep their territory away from extremists' ideology and also opposition political parties' influences. Lastly, the rationale behind the enforcement of MCO is certainly for the sake of public health. Without the implementation of MCO, the public would have been in a high risk of contraction with the Covid-19 virus hence we should be grateful of the heroic acts of our frontline people and the leadership of our amazing leaders especially our prime minister and our director general of health.

ACKNOWLEDGMENT

The authors would like to thank Pusat Asasi UiTM, Cawangan Selangor Kampus Dengkil for lending financial support.



REFERENCES

- [1] Guild, E., & Monnet, J. (2013). *The right to leave a country*. Council of Europe.
- [2] *Loh Wai Kong v Government of Malaysia* [1979] 2 MLJ 33
- [3] *Pua Kiam Wee v Ketua Pengarah Imigresen Malaysia & Anor*, [2018] 6 MLJ 670
- [4] *Zulkiflee SM Anwarul Haque v. Ketua Pengarah Jabatan Imigresen Malaysia* [2018] 1 LNS 244
- [5] Meikeng, Yuan. (2016, Sept 11). No take off till you pay off. *The Star*.
- [6] Aziz, M. R. A. (2014). A Controversial Issue on Interest of the National Higher Education Fund Corporation (PTPTN): A Case Study. *Journal of Social Economics*, 1(4), 187-192.
- [7] Ming, O.K, Yong, J. Yen, C.K & Ng. D. (2016). *The sustainability of the PTPTN loan scheme*. Penang Institute.
- [8] Anuar, S.S. (2018, May 31). Travel ban on 433,000 PTPTN loan defaulters lifted by June 15, says education minister. *New Straits Times*.
- [9] Kannan, H. (2016, June 31). Almost 120,000 Malaysians barred from travelling abroad due to unpaid income tax. *New Straits Times*.
- [10] *Stoppage Order*. (2020, January 15). Official Portal of Inland Revenue Board of Malaysia. Retrieved June 4, 2020, from http://www.hasil.gov.my/bt_goindex.php?bt_kump=2&bt_skum=6&bt_posi=1&bt_unit=9&bt_sequ=1&bt_lgv=2
- [11] *Kan Kok Houw v Ketua Pengarah Jabatan Imigresen Malaysia & Anor* [2019] MLJU 645
- [12] *Sugumar Balakrishnan V Pengarah Imigresen Negeri Sabah & Anor* [1998] 3 MLJ 289
- [13] Cheng, N. (2016, Mar 14). Zahid: More than 820k Malaysians barred from leaving. *The Star*.
- [14] Amnesty International. 2017. *Malaysia: Open-ended travel bans violate the rights of human rights defenders and political figures*.
- [15] Ridicule Government and you can be barred. (2016, May 18). *The Star*.
- [16] Bernama. (2019, Feb 19). Maria Chin gets leave to appeal against travel ban. *New Straits Times*.
- [17] Cheah, B. (2018, Sept 16). New challenges, renewed hope. *The Star*.
- [18] Faruqi, S. S. (2019). *Our constitution*. Subang Jaya: Sweet & Maxwell Asia.
- [19] The Malaysian Insider. (2015, Dec 7). Sarawak travel ban abuse of immigration powers, says lawyers' group. *The Edge Market*.
- [20] Cameons, A. (2020, March 17). IGP: Interstate travel requires police permission during movement control order. *The Star*.
- [21] Lim, I. (2020, May 4). *Malay Mail*. Retrieved from <https://www.malaymail.com/news/malaysia/2020/05/04/minister-malaysia-now-in-phase-five-putrajayas-new-rules-for-cmco-applies-n/186292>



Impact of Covid-19 Outbreak on Small and Medium Enterprises (SMEs) Cash Flow

¹Ahmad Rafli Che Omar, ¹Azhar Ahmad, *²Suraiya Ishak

¹Faculty of Economics and Business, Universiti Kebangsaan Malaysia, 43600 Bangi,
Selangor, Malaysia

²Faculty of Social Science and Humanities, Universiti Kebangsaan Malaysia, 43600 Bangi,
Selangor, Malaysia

*E-mail: suraiya@ukm.edu.my

ABSTRACT

The Covid-19 coronavirus outbreak and the Movement Control Order (MCO) are the latest economic challenges affecting SMEs business in various countries. It has affected the SMEs operations, financial position and survival. Currently, economic experts revealed that cash flow position stand as a major issue faced by SMEs. However, the specific impacts on SMEs cash flow are still understudy. Therefore, the goal of this article is to fill this gap by investigating the impact of SMEs' cash flows from the perspectives of SMEs' owner. Qualitative approach was used as the method of study, where seven selected owners were interviewed through phone calls from 18 March, 2020 until 31 March 2020 during the first phase of Malaysian MCO period. The study has identified four indicators of cash flows distress such as total loss of income; drastic reduction in income; cash flow imbalance; and increased exposure toward insolvency risks. Consequently, when deciding on the financial strategy, it is essentials for SMEs to implement the pecking order practice and prudent short-term cash flow management that emphasis on cash reserve and retain earnings. Finally, this article highlights few suggestions for future research and SMEs development agenda.

Keywords: Covid-19; Movement Control Order (MCO); SMEs; Cash Flow; Business

1. INTRODUCTION

The Covid-19 pandemic has seriously affected the world economy and industry players. By middle April 2020, the virus has infected more than a million peoples. Therefore, many countries are now implementing total lockdown and Movement Control Order (MCO) to break off its rapid escalation. The preventive action and social distancing measures are affecting corporation and small and medium enterprises (SMEs) operation. Thus, creating a problem of cash flows imbalance for the companies. Even though the business is in lockdown mode, they are still required to pay existing financial commitments, staff salaries and overhead costs. Therefore, the current situation has forced the SMEs to implement staff layoff, salary cutting, retrenchments and if the situation worsen some companies have to shut down their business.

The Covid-19 outbreak is an unexpected crisis. At a macro level, economists had predicted the slowing down of business activity since March 2020 until an unknown ending date [7]. Since the situation is still in limbo, comprehensive data about the impacts on cash flows at individual SMEs are still unavailable at this moment. SMEs are sometimes being place under misinterpretation that high revenues will derive high profits [10]. However, people fail to appreciate that if substantial cash is not procure from those revenues, firm will have insufficient cash to pay off current expenses. Thus, cash flow problem is expected to dilute SMEs' capacity

for future expansion and business survival or will ultimately face liquidity problems [4,8]. Therefore, there is an urgent demand to investigate the impact of such crisis on SMEs when little evidence is available for references. As such, changes of business tactics and strategies during this crisis period are recognized as crucial for SMEs survival [3].

Managing cash flow has been a challenge for SMEs during turbulence and critical economics situation. In fact, during normal situation cash flow imbalance has led to collapse of many young SMEs within the first three to five years of their establishment [1,6,10]. Strong relationship exists between cash flow and sustainability of SMEs [5]. Running out of cash is normally a result of poor cash flow management, but it might be different during the crisis period [10]. Hence, cash flow management is the business strategy in optimizing liquidity. Therefore, the process of cash flows management involves three specific stages, i.e. managing cash in and out of the company, managing cash flows within the company and handling cash balances at any point of time [1]. The first stage is the most important process since SMEs need to have proper cash flow synchronization to pay all of current business commitments [6]. Good cash flow management enables business to achieve short-term objective and expansion plan.

This study aims to explore the impacts of Covid-19 on SMEs cash flows and to understand suitable strategy in preserving their business. Several SMEs owners from different business segments were involved in this study. Their fresh inputs were very important for policy makers to plan appropriate actions for SMEs development after the pandemic. The results of this study will further enhance the knowledge about SMEs cash flows' challenges during the unexpected business turbulence.

2. METHODOLOGY

Data collection was done through telephone interviews with seven SMEs owners in Peninsular Malaysia during the first week of April 2020 (i.e. the end of first phase of Malaysian MCO period). Phone interview is the easiest and safest communication channel during the Covid-19 outbreak and MCO period. Non-probability purposive sampling was used in identifying the respondents who were also alumni of the entrepreneurship program at the Faculty of Economics and Management, Universiti Kebangsaan Malaysia (UKM). A set of six open-ended questions was used to seek appropriate responses and evidences. The interview was audio recorded and the duration of each interview was about 40 minutes. Through content analysis, researchers were able to analyse the conversation transcripts. Eventually, the data was coded, classified, and interpreted to gather meaningful themes as suggested by Austin and Sutton [2]. The profiles of the owners (RES) and their company are shown in Table 1.

Table 1: Owner and Company Background

Respondent	Gender	Experience in business	Business activity	Office location	Paid-up capital	Annual turnover	No. of staff
RES-1	Male	18 years	Oil and gas technical services	Puchong, Selangor	RM5million	RM20million	98
RES-2	Male	21 years	Telecommunication support systems provider	Cheras, Kuala Lumpur	RM500k	RM2.5million	10
RES-3	Female	12 years	Restaurants and bakery	Bangi, Selangor	RM150k	RM250k	8
RES-4	Female	11 years	Healthcare and beauty products manufacturer	Shah Alam, Selangor	RM1million	RM9million	40
RES-5	Male	7 years	Printing	Kajang, Selangor	RM900k	RM1million	8
RES-6	Male	10 years	Agriculture farm (vegetables, mushroom and chicken poultry)	Alor Setar, Kedah	RM150k	RM140k	4
RES-7	Male	8 years	Travel agency	Damansara, Kuala Lumpur	RM200k	RM3million	5

3. RESULTS

The outbreak has brought serious burden to the companies. The specific impacts on the companies' cash flow are categorized into four themes as shown in Table 2.

Table 2: Impacts on SMEs Cash Flow

No	Theme of impact	Interviews' transcription
1	Total loss of income	<p><i>"We run our restaurant in a university. Due to the campus closure, we lost totally... No income". [RES-3]</i></p> <p><i>"My business totally stop after the MCO starts. We have no income at all." [RES-5]</i></p> <p><i>"Since the first day of MCO, we are 100% closed down. No customers want to travel overseas in this period". [RES-7]</i></p>
2	Drastic reduction in income	<p><i>"Most of our contract with O&G companies are put on hold until further notice. Our income has automatically drop about 60%". [RES-1]</i></p> <p><i>"We don't have new business and our existing customers are forced to close their premises. We lost a lot of income". [RES-2]</i></p>



- 3 Cash flow imbalance *“Six-month loan moratorium by banks is not including financial lease. I still have to pay our RM20,000 monthly leasing for our machines”. [RES-5]*
- “In March, we still pay full salary for all staff. Without incoming income, how would company bear RM30,000 overhead cost every month?”. [RES-7]*
- “We have yet to apply for any government incentive packages. I am still waiting further information from Agriculture Department and AgroBank”. [RES-6]*
- 4 Increase exposure to *“We can’t really predict future direction of this business at this moment. For insolvency risks the time being, we just grab whatever opportunities that come to us”. [RES-4]*
- “We cannot survive for more than 2 months without any income”. [RES-5]*
- “I hope to sustain for at least 3 to 4 months with our existing savings. I can’t predict what is going to happen then”. [RES-7]*
-

4. DISCUSSION

The results have shown significant impacts of Covid-19 pandemic and MCO on SMEs cash flow in Malaysia. About half of the respondents [RES-3; RES-5; RES-7] have totally lost their income, as their business were forced to suspend operation during the MCO. This situation occurred since their business activity was classified as non-essentials sector. Meanwhile, other SMEs had reported a drastic slump of business income when their suppliers and customers were affected by the logistic constraints and closedown order [RES-1; RES-2]. Facing with this crisis, SMEs are expected to have business diversification and dynamic capabilities to react and switch their business operation. As mentioned by one of the respondents, *“our company is still running well by producing our new products, hand sanitizer and surface disinfectant liquids just before the MCO, as we know there are good demand for them”* [RES-4]. The diversification strategy supports the findings of other past study [9].

Cash flow imbalance during crisis will create a critical issue since owners are still obliged to spend money on staff salary, loans repayment, rental and other fixed costs [RES-5; RES-7]. Even though the Malaysian commercial banks have offered a six-month moratorium for business loans, there are certain financing method such as leasing which is not included under the loan category. With high financial commitments, SMEs are exposing themselves to insolvency risks as detected from the feedback of RES-4 and RES-7. This situation is critical for the sustainability of the firms [4,8]. Therefore, SMEs are encouraged to implement the pecking order technique in their business expansion, as well as strengthening cash management discipline in daily operations and financial management practices.

5. CONCLUSION

In a nutshell, a strategic approach is a prerequisite to support the cash flow position of SMEs during unexpected economic turbulence. The study recommends two options - the diversification strategy and the firm’s dynamic capabilities to switch into better business prospects at all times. Given that most SMEs are still focusing in single business activity, there is a pressing need to manage their cash flow’s position through the implementation of pecking

order technique in business expansion. SMEs should always strengthen their short-term cash flow management by highly accumulating adequate retain earnings for the rainy days.

Similarly, government should also disseminate the information and strengthen the distribution procedures of all SMEs' stimulus package, as it will help them recover short-term cash flow impact. In addition, SMEs development agencies have to provide one-to-one business advisory services especially to those adversely affected companies. As for future research, it would be useful to replicate and generalize the study on a larger local and international scale as the Covid-19 outbreak has affected both the profit and non-profit organizations.

ACKNOWLEDGEMENT

We would like to thank Yunus Centre of Social Business UKM (YCSB-UKM) for the research grant EP-2019-055 on SMEs development.

REFERENCES

- [1] Ahmad, N.N. (2017). Cash management practices in micro and small businesses in Malaysia. *Journal of Education and Social Sciences*, 4 (June), 331–335.
- [2] Austin, Z., & Sutton, J. (2015). Qualitative research: Data collection, analysis and management. *The Canadian Journal of Hospital Pharmacy*, 68(3): 226–231.
- [3] Cassia, L., & Minola, T. (2012). Hyper-growth of SMEs towards a reconciliation of entrepreneurial orientation and strategic resources. *International Journal of Entrepreneurial Behavior & Research*, 18(2), 179–197.
- [4] Craven, M., Liu, L., Mysore, M., & Wilson, M. (2020). COVID-19: Implications for business. Executive Briefing, COVID-19: Briefing note, McKinsey & Company. Retrieved from <https://www.mckinsey.com/business-functions/risk/our-insights>.
- [5] Mutesigensi, D, Eton, M., Ebong, C.D, & Mwosi, F. (2017). Cash flow and survival of SMEs in Arua District, West Nile Region Uganda. *International Journal of Small Business and Entrepreneurship Research*, 5(5), 9–18.
- [6] Omar, A.R.C., Hamid, M.A., & Ishak, S. (2008). Pengurusan tunai dan cabaran perniagaan. In. Yahaya Ibrahim, Mohd Fauzi Mohd Jani, Sarmila Md Sum & Zaimah Ramli (eds.), *Keusahawanan dan Cabaran Perniagaan di Malaysia*, 34–42. Bangi: Fakulti Ekonomi dan Perniagaan, Universiti Kebangsaan Malaysia.
- [7] Segal, S., & Gerstel, D. (2020). The global economic impacts of COVID-19, Critical Questions, Center for Strategic and International Studies (CSIS). Retrieved from <https://www.csis.org/analysis>.
- [8] Smith-Bingham, R., & Hariharan, K. (2020). This is the impact of the Coronavirus on business. World Economic Forum. Retrieved from <https://www.weforum.org/agenda>.
- [9] Svatošová, V. (2019). Identification of financial strategy in small and medium-sized entrepreneurship. *ACTA Universitatis Agriculturae ET Silviculturae Mendelianae Brunensis*, 65(4), 1435–1453.
- [10] Wadesango, N., Tinarwo, N., Sitcha, L., & Machingambi, S. (2019). The impact of cash flow management on the profitability and sustainability of small to medium sized enterprises. *International Journal of Entrepreneurship*, 23(2), 1–19.

BETTER DETECTION BETTER PREVENTION BETTER SOLUTIONS

ATOMIC SPECTROSCOPY

- Atomic Absorption
- ICP Optical Emission
- ICP Mass Spectrometry
- Sample Digestion



PinAAcle™ Series
Atomic Absorption



Avio® 500 ICP Optical
Emission Spectrometers



NexION® 2000 ICP-MS



Titan MPS™ Microwave
Sample Preparation System



Sample Preparation
Block 72x50ml position

CHROMATOGRAPHY

- Gas Chromatography
- Trap Headspace Autosampler
- Thermal Desorption Autosampler
- Liquid Chromatography



Clarus™ 690/590
Gas Chromatography



TurboMatrix™ HS



TurboMatrix™ TD/ATD



Flexar HPLC & UHPLC

Organic MASS SPECTROMETRY

- GC and LC Mass Spectrometry
- Portable GC/MS



Clarus® SQ 8 GC/MS



QSight™ LC/MS/MS



Torion® T-9 Portable GC/MS

Molecular Spectrum

- UV/Vis/NIR
- FT-IR/NIR
- FL



LAMBDA™ 265 365 465
UV/Vis Solutions



Spotlight™ 150i/200i
FT-IR Microscope



Frontier™ FT-IR, NIR and FIR
Spectroscopy



Spectrum Two™
FTIR, FT-NIR Spectroscopy



FL 8500™ Fluorescence
Spectrometers

Thermal Analysis

- STA
- DSC
- TGA
- EA
- DMA
- TMA



STA 8000



DSC 8000/8500



TGA 8000™



DMA 8000

New hyphenation system

- TG-IR
- TG-MS
- TG-GC/MS
- TG-IR-GC/MS



TG-IR



TG-MS



TG-GC/MS



TG-IR-GC/MS

Perkin Elmer Sdn Bhd

#2.01, Level 2, Wisma Academy,
Lot 4A, Jalan 19/1, 46300 Petaling Jaya, Selangor
Tel :03-79491118 Fax :03-79491119
www.perkinelmer.com



Scan QR code
to contact us


PerkinElmer
For the Better

Plastic, Polymer and Elastomer Testing Equipment

Preparative
Thermal Properties
Mechanical Properties
Size and Surface
Optical Testing



Micro-compounder



Micro-injection Moulder



Double Wind Line



solartron
analytical



Micro-cast Film Line

ACCURION
solutions for science

CARBOLITE
GERO 50-3000°C

C-THERM
TECHNOLOGIES

JASCO

KEM

Levibond

ramé-hart

SETARAM
Instrumentation
KSP TECHNOLOGIES

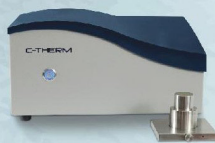
SYMPA
T+

xplore
The platform for
formulation development

Thermal



Differential Scanning Calorimeter



Thermal Conductivity Analyzer

Size



Particle Size Analyzer



Gel Permeation Chromatography



Thermal Gravimetric Analyzer



Isothermal Titration Calorimeter



Muffle Furnace



Colour meter



Refractometer



Karl Fisher Titrator



Viscometer



Density Meter

General

Mechanical



Thermo Mechanical Analyzer



Dilatometer

Molecular Spectroscopic

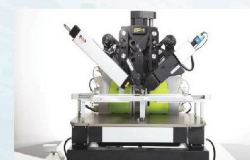


Raman Spectrometer



Fourier Transform Infrared Spectrometer (FTIR)

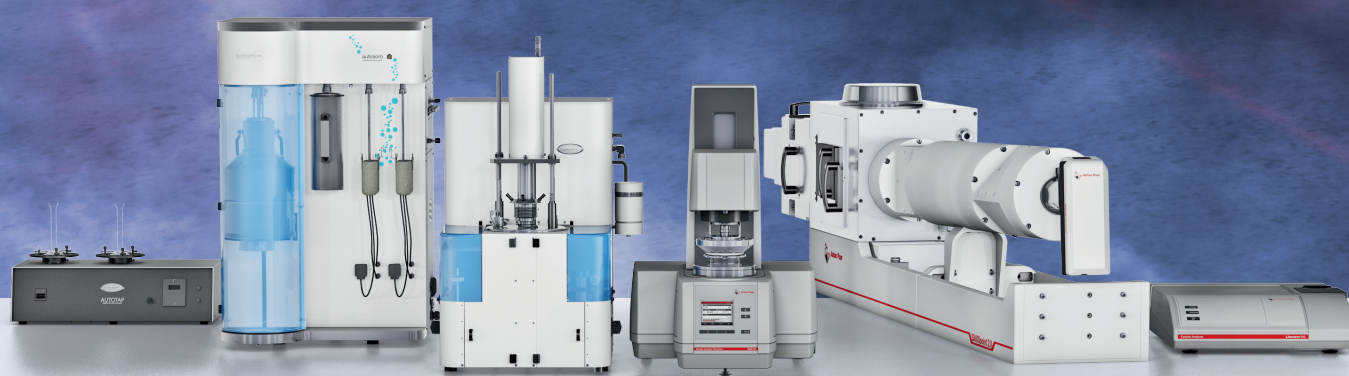
Surface



Ellipsometer



Contact Angle Goniometer/Tensiometer

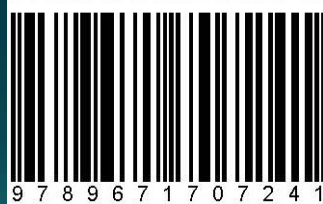


NEW HORIZONS IN PARTICLE ANALYSIS

- The broadest particle characterization portfolio worldwide
- 29 instruments to determine more than 20 parameters – all from one source
- Pioneer in three of the offered technologies: SAXS, powder rheology, and laser diffraction
- Six decades of experience in the field



e ISBN 978-967-17072-4-1



Published by:

**Centre of Foundation Studies
Universiti Teknologi Mara (UiTM)
Cawangan Selangor, Kampus Dengkil
43800 Dengkil, Selangor, Malaysia**