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### LEVEL OF PUBLIC'S ACCEPTANCE TOWARDS COVID-19 VACCINE

Ahmad Muzzammil Aqib Md Zin, Nor Hasimah Md Noor, Nurul Akmal Lokman, Abdul Rauf Ridzuan and Mohd Hilmi Bakar

Universiti Teknologi MARA

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Correspondent email: [Abdulrauf@uitm.edu.my](mailto:Abdulrauf@uitm.edu.my)

#### ABSTRACT

*After almost 2 years since the first COVID-19 case outbreak, Malaysia had finally received the COVID-19 vaccines. There are several brands of vaccines from various manufacturers that had been tested and approved by National Pharmaceutical Regulatory Agency (NPRA). This study is conducted to identify the level of public's awareness and acceptance towards the COVID-19 vaccine. 44 online survey questions were prepared including questions related to demographic background. The Google Form survey was disseminated to family and friends via social media platform such as WhatsApp, Twitter and Instagram. A number of 405 respondents had answered the survey resulting to a positive result on the awareness ( $M = 3.60$ ) and acceptance ( $M = 3.58$ ) of public towards COVID-19 vaccine.*

**Keywords:** COVID-19 vaccine, awareness, acceptance

## INTRODUCTION

It's 2021 and Corona Virus Disease 2019 or COVID-19 is no longer something new. This virus has been stealing the lime lights of prime news worldwide. As for our country Malaysia, according to Elengoe (2020), the first COVID-19 case was detected on 25th January 2020 on 3 China nationals who travelled to Malaysia via Singapore where they were infected by the virus. Followed by several cases in February and early March up till an exponential rise of cases detected from a religious event that was held in Sri Petaling with the attendance of approximately 16,000 participants from all over Malaysia and some participants from overseas. Within a few weeks after the event, Malaysia recorded the highest case in Southeast Asia which resulted in a Movement Control Order (MCO) announced by Prime Minister, YAB Tan Sri Muhyiddin Yassin.

Our Malaysian government also took an initiative to develop an application called MySejahtera, where this application helps in monitoring the transmission of COVID-19 disease by enabling registered users to perform a self-check health assessment (Malaysian Administrative Modernisation and Management Planning Unit [MAMPU], 2020). Our Government also has made it mandatory for everyone entering any business premises to scan QR code on their MySejahtera, as it helps to ease the contact tracing for any individuals just in case they are infected with COVID-19. This application also enables users to trace the hotspot areas where high and low cases of COVID-19, and recently, a special feature where users could register for vaccination and their vaccination appointment can be traced via this app.

In February, our Director-General of Health, Tan Sri Dato' Seri Dr Noor Hisham Abdullah announced that Malaysia will be receiving the first batch of vaccines at the end. Up until May 2021, statistics from Jawatankuasa Khas Jaminan Akses Bekalan Vaksin COVID-19 (JKJAV) showed a total number of 10.1 million citizens that had registered for Covid-19 vaccine meanwhile a total number of 1.1 million citizens had already been vaccinated. The importance of vaccines could benefit not just individually but also the whole nation. In ratio, approximately only 3.36% out of 32.7 million population in Malaysia had already taken at least their first jab of vaccine.

This clearly shows a trend of acceptance towards vaccines among Malaysians. On social media, there has been an argument ongoing whether to take the vaccine or not. There are several factors influencing the acceptance towards vaccines be it from individual perspective, authority's enforcement, or even public opinions or theories. On top of that, how one's decision to get vaccinated or not is related to Social Cognitive Theory where an individual could say yes or no to vaccines based on what they read and what people around them said.

## **PROBLEM STATEMENT**

In this research, the factors of public acceptance towards COVID-19 vaccine will be determined. As the majority of citizens are ready to get vaccinated, there are still several communities that have been doubting whether to get vaccinated or not, for many purposes that they are not sure of. Apart from how the media conveyed the importance of the vaccine, their surroundings also are playing a huge role in influencing their decision whether to vaccinate or not.

According to Hischmann (2021), as of February 14, only 65 percent of Malaysian respondents stated that they were willing to get vaccinated against Covid-19. However, as the vaccination program started to roll out, as of May 11, Su-Lyn (2021), wrote an article mentioning only 2.2 percent out of 32.7 million people in Malaysia have completed their 2 doses of vaccination. Meanwhile, only 1.2 million (approximately 3.6 per cent) people have received at least their first COVID-19 vaccine dose.

From previous research and articles on COVID-19 and its vaccine situation in Malaysia, this research will identify the factors of acceptance towards COVID-19 vaccines among Malaysians and people residing in Malaysia and how it is influenced by others. These factors are important in determining the factual reasonings from an individual in deciding whether to get vaccinated or not against COVID-19 virus. It will also identify the most extreme factor that affects an individual's decision on vaccines. Apart from that, this research will also investigate the experience of individuals who have been vaccinated and whether their experience sharing would actually affect others' decision in getting the COVID-19 vaccine.

## RESEARCH QUESTIONS

- What is the level of awareness toward the importance of COVID-19 vaccines?
- What is the level of public's acceptance of COVID-19 vaccines?

## RESEARCH OBJECTIVES

- To identify the level of awareness toward the importance of COVID-19 vaccines.
- To measure the level of acceptance on COVID-19 vaccines.

## RESEARCH FRAMEWORK

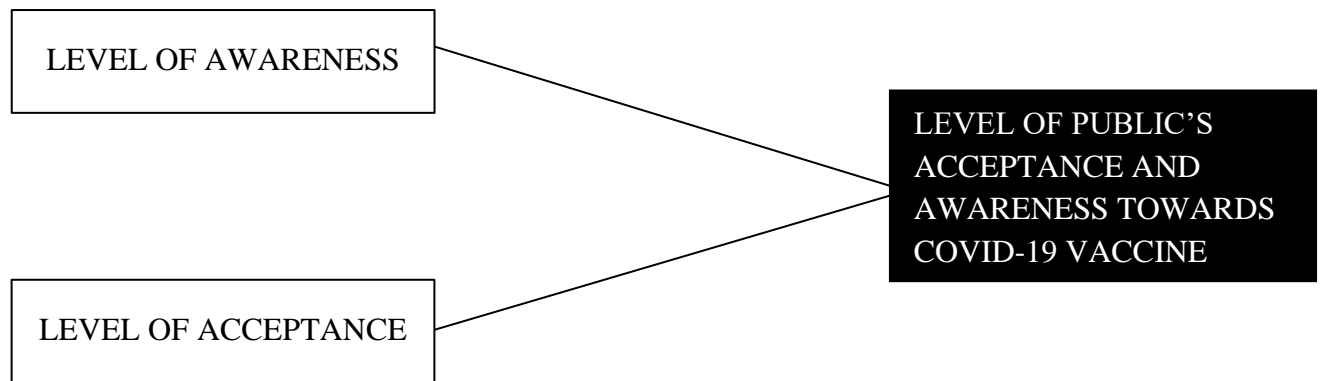


Figure 1: The Level of Public's Awareness and Acceptance Towards COVID-19 Vaccine

## LITERATURE REVIEW

### Definition of COVID-19

COVID-19, or officially named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first reported in China in December 2019. The outbreak has been so out of control with high rate of morbidity and mortality that it has been declared as a global pandemic by the World Health Organization (WHO) in March 11th, 2020 (Liu, 2020)

The symptoms range from symptomless to mild upper respiratory tract symptoms namely cough and fever, to pneumonia, and even multiple organ failure while the mortality rate is in the region

of 10 times higher than the seasonal influenza at 2.3% (W. Alhazzani, M.H. Moller, Y.M. Arabi, et al., 2020).

### **Definition of Social Cognitive Theory**

Previously known as Social Learning Theory (SLT), Albert Bandura, (1986), has described Social Cognitive Theory (SCT) as a knowledge gaining phase through social context with an effectual interaction of the individual, environment, and behavioural change. The qualities of SCT is how a person gains some kind of characteristics and behaviours through observing the society and the environment around them. The responses, actions, and ideas shown to the person will be observed and then will be reinforced into the person's own behaviour and action.

Different emotions and actions would be applied based on the diversities of the society and environment around them, such as their age, race, sex, and physical attractiveness while socially, they would also consider the differences in social status and roles to affect the recipients' understanding of themselves and others in ways that either strengthen or completely change the environmental inclination (Snyder, 1981; Lerner, 1982).

### **Definition of Vaccine**

The earliest documented research was made by Edward Jenner who first pitched the concept of vaccines which also resulted in the making of the smallpox vaccine, the first ever vaccine the world has ever got (1798). Vaccination is the process of inserting certain antigen derived from the pathogens, either viruses or bacteria, into the body and training the immune system into recognizing the threat and lessening the side effects that they give to the body whenever they contact the same virus in the future.

## **FACTORS THAT AFFECT THE ACCEPTANCE OF VACCINE**

### I. Level of trust towards the safety and effectiveness of vaccines on someone's health

As companies around the globe race to develop a COVID-19 vaccine and nations scramble to secure millions of doses, questions about the ingredients of the vaccine have begun to play a role in the purchasing and planned distribution. You may have heard that vaccines contain all types of crazy ingredients that sound as though they don't belong in a medical product. There are a very small group of very vocal, but misinformed, individuals who have made false accusations regarding the safety of vaccines and their ingredients. According to Jones et al., (2020), it has been shown, however, that parents who exempt their children from vaccinations are more likely to have obtained information from the Internet compared to parents who choose to vaccinate their children. In most instances these allegations are just wrong. In other cases, the claims are from information taken out of context or are trying to purposely mislead people.

However, the Muslim clerical body that issues certifications that a product is halal, or permissible under Islamic law, decreed that the measles and rubella vaccines were "haram," or unlawful, because of the gelatin. Furthermore, rumours of a vaccine containing cells from aborted fetuses or genes from pigs raised religious concern among the Muslims. In Malaysia, where the halal status of vaccines has been identified as the biggest issue among Muslim parents, stricter laws have been enacted so that parents must vaccinate their children or face fines and jail time. British government has stated that the vaccine does not contain any components of animal origin. But with rising vaccine hesitancy and misinformation spreading around the globe, including in religious communities, there have been dissenting opinions on the issue. The only doubtful ingredient in the vaccine is cholesterol, as it could be derived from animal fat, but the pharmaceutical company says it is from plant-derived sources or are synthetic.

According to Dr. Mohammed Ali Al-Sheikh (2020), who works at the Standards and Metrology Institute for Islamic Countries (SMIIC), the halal certification has to be carried out by a competent third-party and cannot be claimed by a manufacturer itself. However, in spite of these flimsy or technical objections, Bahrain, Saudi Arabia, Bangladesh, Malaysia, Indonesia, the UAE and Pakistan, countries which claim to be Islamic or are Muslim-majority countries, have approved the Sinopharm vaccine. Islamic authorities in other countries where Muslims make up a sizable share

of the population, including Malaysia and the United Arab Emirates, have already ruled that coronavirus vaccines are permissible, even if there is an ingredient which is not permissible, the chemical transformation process will make it clean and halal.

Despite the implications to the contrary in many anti-vaccine publications, vaccines are very safe. Most vaccine adverse events are minor and temporary, such as a sore arm or mild fever. More serious adverse events occur rarely and some are so rare that risk cannot be accurately assessed. So few deaths can plausibly be attributed to vaccines that it is hard to assess the risk statistically. Each death reported to ministries of health is thoroughly examined to assess whether it is really related to administration of the vaccine, and if so, what exactly is the cause. When, after careful investigation, an event is felt to be a genuine vaccine-related event, it is most frequently found to be a programmatic error, not related to vaccine manufacture.

## II. Propaganda, Conspiracy Theories and Medical Theories

According to Boyd (2021), on the eve of mass Covid-19 immunization after the timely development of safe and effective vaccines in a number of countries, the quest is now to tackle so-called anti-vaxxers and their social media-fueled spread of anti-vaccine propaganda. Anti-vaxxers and Covid deniers are currently engaged in spreading malicious misinformation about vaccines in general, but especially about those manufactured to tackle Covid-19. This is potentially risking the health of many people in society but especially those from visible minority communities. For almost as long as humanity has had vaccines, it has also had propagandists who try to scare people out of using them. The misleading claims will soon hear about the newly released COVID-19 vaccines are nearly identical to claims made about smallpox immunizations 120 years ago which is the ingredients are toxic and unnatural, the vaccines are insufficiently tested, the scientists who produce them are quacks and profiteers, the cell cultures involved in some shots are an affront to the religious and the authorities working to protect public health are guilty of tyrannical overreach.

Consequently, networked activism is driving the spread of anti-vaccine COVID-19 propaganda. People are about to see a deluge of tweets, posts, and snarky memes that will attempt to erode trust in the vaccine rollouts. Hussain et al., (2018), said when powerful people overtly or covertly

promote the anti-vaccination movement the harm they can potentially do is incalculable but especially to young children. Undoubtedly the role of social media through the internet is one of the primary reasons for the recent strengthening of the anti-vaccination movement and its impact on public health generally. The anti-vaxxers believe without evidence to support their views that vaccines cause more harm than benefits to the health of the children and adults that are given them. Such views have led to a reduction in immunizations, which poses threats to the herd immunity that global immunization offers. Society's ability to return to a semblance of normalcy depends on how effectively public-health authorities counter this misinformation and how assiduously media outlets and internet platforms refrain from amplifying it. For instance, the anti-vaccine activists were amplifying stories of allergic reactions and sharing claims about friends of friends whom the vaccine had supposedly injured or killed.

Moreover, one of the claims was that Chinese laboratories lacked monkeys, and therefore, the Chinese developed a vaccine that was trialed in Indonesia. Another Facebook post warned people not to be part of the vaccine trial in India. A rumor circulated in Bangladesh that China wanted to use Bangladesh citizens as guinea pigs for a vaccine trial. Another dominant rumor was that crucial phases of the clinical trials were skipped as the pharmaceutical companies would not compensate participants for adverse side effects during the trial.

"Disinformation has become a direct threat to public health,". Social media platforms have become a common source for health information. During a pandemic, people may use social media to improve their knowledge about the disease, transmission, and prevention mechanisms. Health information circulating on online platforms are often amplified by rumors and conspiracy theories that are not always based on scientific evidence. Health information seeking behavior on online platforms puts users at risk of being exposed to misinformation that could potentially threaten public health.

Even before COVID-19, the consequence of this on public acceptance of medical science has been alarming. Due to exposure to anti-vaccine propaganda, medical myths such as vaccines cause autism, the effectiveness of vaccinations has never been proven, vaccinations cause the diseases that they are meant to prevent and vaccines contain unsafe toxins counter appear to decrying the safety and effectiveness of vaccines and questioning the motives of those who advocate



vaccination. As Covid-19 vaccination is being rolled out across many countries it is important for health care professionals to take seriously the threat posed by anti-vaxxers and their use of social media platforms to spread misinformation (Wilson & Wiysonge, 2020).

### III. Rate of progress of vaccine distribution nationwide

Jagdeep Singh Deo (2021) said, a total of 10.29 million Malaysians had registered for the vaccine with only 1.26 million completing their second dose. The slow start of the Covid-19 vaccine rollout, along with the arrival of new virus variants and the slow distribution process has made many people feel frustrated and confused about how to sign up for shots. One of the main reasons occurs right at the beginning of the process probably because of a simple lack of sufficient ingredients and vaccine supply is limited and uncertain as this has never been done before. The federal government and major drug companies to rapidly develop and distribute COVID-19 vaccines, reached its first goal with unrivaled success. Past vaccines like those for polio and flu took years, even decades, to develop.

However, according to Toner (2021), a senior scholar at Johns Hopkins University's Center for Health Security. "It leaves less time to have a carefully planned rollout of the vaccine, for both the feds to figure out how they're going to get the vaccine to the states and for the states to figure out how they're going to distribute it and educate the public."

Besides, slow distribution of vaccines remains low due to wealthier nations cornering the market. Some rich countries buy doses three to five times more than their citizens need. The distribution of vaccines also concludes phase One involving medical and non-medical frontliners. And commence phase two involving people above 60 and those with chronic illnesses. This hairy allayed public concerns with the reality of vaccine availability, as well as the anxiety about getting their Covid-19 vaccination.

## **RESEARCH METHODOLOGY**

### **Research Design**

This research is conducted as a quantitative survey type of research. An online survey was carried out and distributed via Whatsapp, Facebook, Instagram and Telegram. By using these social media

platforms, we have a wider reach to obtain more accurate information on how acceptance towards vaccines is influenced by others.

### **Sampling Technique**

As for the sampling, this study is using a non-probability sampling technique which involves the convenience sample. According to Derek and Kerry (2020), non-probability sampling involving convenience samples means distributing the survey to people that we have access to such as friends, family and colleagues.

### **Research Measurement**

This questionnaire consists of 44 questions with 3 sections breakdown. The first section consists of 21 nominal scale questions on demographic background and general information on Covid-19 vaccine. The second section consists of 12 ordinal questions on the level of awareness towards Covid-19 vaccine, while the third section consists of 11 questions on the level of acceptance towards Covid-19 vaccine. The questions are made easy for the respondents to understand and answer. The data were keyed-in on an Excel Spreadsheet.

### **Data Analysis**

For data analysis, an Excel Spreadsheet was generated. The procedure includes data transferring and calculating the average. The Excel data is then transferred to Statistical Package for the Social Sciences (SPSS) software which enable the data to be analyzed, transformed and produced in an understandable manner (Noels, 2018).

## **FINDINGS: RESULTS AND DISCUSSION**

In the first section, there were 21 questions asked. These questions were asked to identify respondents' demographic background and also general questions on Covid-19 vaccine. Table 1 represent the 7 questions related to demographic backgrounds.

**Table 1: Distribution of the respondents by demographic (n=405)**

DEMOGRAPHIC	FREQUENCY	PERCENTAGE
<b>Sex / Jantina</b>		
Male / Lelaki	151	37.3
Female / Perempuan	254	62.7
<b>Age / Umur</b>		
18 – 25	194	47.9
26 – 35	113	27.9
36 – 45	19	4.7
46 – 55	16	4.0
56 and above	63	15.6
<b>Occupation / Pekerjaan</b>		
Student / Pelajar	130	32.0
Government Sector / Sektor kerajaan	27	6.7
Private Sector / Sektor swasta	127	31.4
Self-employed / Bekerja sendiri	39	9.7
Unemployed / Menganggur	17	4.2
Housewife or Househusband / Surirumah	18	4.5
Retiree / Pesara	43	10.6
Others / Lain-lain	1	0.2
<b>Household Income / Pendapatan Isi Rumah</b>		
B40 (RM 0 – RM 4,850)	264	65.2
M40 (RM 4,851 – RM 10,970)	109	26.9
T20 (RM 10,971 and above)	32	8.0
<b>Current residing state / Negeri menetap semasa</b>		
East Coast (Pahang, Kelantan & Terengganu)	28	6.9
Northern Region (Perak, Penang, Perlis & Kedah)	28	6.9
Central Region (Kuala Lumpur, Selangor & Putrajaya)	215	53.1
Southern Region (Negeri Sembilan, Melaka & Johor)	133	32.8
East Malaysia (Sabah & Sarawak)	1	0.2
<b>Current residing area / Kawasan tempat tinggal semasa</b>		
Urban area / Kawasan bandar	314	77.5

Suburban area / Kawasan luar bandar	83	20.5
Rural area / Kawasan pedalaman	8	2.0
<b>Are you currently having any health problems below? / Adakah anda mengalami sebarang penyakit di bawah?</b>		
Heart disease / Penyakit jantung	7	1.7
Diabetes / Kencing manis	19	4.7
Asthma / Asthma	33	8.2
None of the above / Tiada	323	79.6
Others / Lain-lain	23	5.7

Table 1 above shows the demographic of 405 respondents. Based from the findings, most of the respondents who answered the questionnaires are female (62.7%) and male (37.3%) aged between 18-25 (47.9%) and most of them are students (31.9%). Majority of the respondents also comes from B40 (RM0-RM4850) group of household income (64.9%). Most of the respondents are from the Central Region (Kuala Lumpur, Selangor dan Putrajaya) with (53.1%) and predominantly from urban areas (77.5%).

Apart from the demographic questions, there are also additional questions on general information related to Covid-19. There are fourteen questions asked in this section. These questions were distributed to see the influence from surroundings in affecting the decision on taking Covid-19 vaccine.

**Table 2: Public's thoughts on the vaccination system in Malaysia and how surroundings influence the decision to take the COVID-19 vaccine.**

QUESTION	FREQUENCY	PERCENTAGE
<b>Have you registered for COVID-19 vaccination? / Adakah anda sudah mendaftar untuk vaksinasi COVID-19?</b>		
Yes, I have registered / Ya, saya telah mendaftar	382	94.3%
No, but I will register / Tidak, tapi saya akan mendaftar	19	4.7%
No, I don't want to / Tidak, saya tidak mahu mendaftar	4	1%
<b>Which platform did you use for COVID-19 vaccination registration? / Di platform manakah anda mendaftar untuk vaksin COVID-19?</b>		
Aplikasi MySejahtera / MySejahtera Apps	319	78.8%
Through website (www.vaksincovid.gov.my) / Melalui laman sesawang www.vaksincovid.gov.my.	68	16.8%
Local Health Clinic / Klinik Kesihatan setempat	1	0.2%
Through hotline number / Melalui talian hotline	1	0.2%
Outreach Programme / Program Bantuan	4	1.0%
None of the above	12	3.0%
Others (please state) / Lain-lain (sila nyatakan)	0	0

**Have you received your COVID-19 vaccination appointment date? / Adakah anda telah menerima tarikh giliran untuk divaksin?**

Yes / Ya	228	56.3%
No / Tidak	177	43.7%

**How long was the waiting time for you to receive your vaccination appointment date?/ Berapa lama anda menunggu untuk mendapat tarikh giliran untuk divaksin?**

0 - 4 weeks / 0-4 minggu	104	25.7%
5 - 8 weeks / 5-8 minggu	76	18.7%
More than 8 weeks / Lebih daripada 8 minggu	225	55.6%

**Have you received at least your first dose of COVID-19 vaccine? / Adakah anda telah menerima sekurang-kurangnya dos pertama vaksin COVID-19 anda?**

Yes / Ya	270	66.7%
No / Tidak	135	33.3%

**Do you have any doubts regarding the COVID-19 vaccine? / Adakah anda mempunyai sebarang keraguan mengenai vaksin COVID-19?**

Yes / Ya	62	15.3%
No / Tidak	343	84.7%

**Are you willing to take any brand of COVID-19 vaccine available to you? / Adakah anda bersedia mengambil sebarang vaksin COVID-19 yang tersedia untuk anda?**

Yes / Ya	368	90.9%
No / Tidak	37	9.1%

**I am satisfied with the COVID-19 vaccination registration system / Saya berpuas hati dengan sistem pendaftaran vaksinasi COVID-19**

Yes / Ya	200	49.4%
No / Tidak	205	50.6%

**I am satisfied with the COVID-19 vaccination queueing system / Saya berpuas hati dengan sistem giliran vaksinasi COVID-19**

Yes / Ya	186	45.9%
No / Tidak	219	54.1%

**I am satisfied with the COVID-19 vaccine distribution system / Saya berpuas hati dengan sistem pengagihan vaksin COVID-19**

Yes / Ya	184	45.4%
No / Tidak	221	54.6%

**I am more confident about the news and information about COVID-19 vaccine from / Saya lebih meyakini berita dan maklumat mengenai vaksin COVID-19 daripada**

Television / Televisyen	113	27.9%
Radio / Radio	1	0.2%
Newspaper / Surat khabar	9	2.2%

News websites / Laman sesawang berita	116	28.6%
Social media (Facebook, Twitter, etc) / Media sosial (Facebook, Twitter, etc)	112	27.7%
Social circle (family, friends, co-workers and etc) / Lingkungan sosial (keluarga, rakan-rakan, rakan sekerja dan etc)	38	9.4%
Other	16	4.0%

**I believed news and information regarding COVID-19 vaccine that has been published via / Saya mempercayai sebarang berita dan maklumat berkaitan vaksin COVID-19 yang diterbitkan melalui**

Television / Televisyen	122	30.1%
Radio / Radio	4	1.1%
Newspaper / Surat khabar	15	3.7%
News websites / Laman sesawang berita	133	32.8%
Social media (Facebook, Twitter, etc) / Media sosial (Facebook, Twitter, etc)	92	22.7%
Social circle (family, friends, co-workers and etc) / Lingkungan sosial (keluarga, rakan-rakan, rakan sekerja dan etc)	28	6.9%
Other	11	2.7

**I decided to get vaccinated because of the news about COVID-19 vaccine spreaded via / Saya membuat keputusan untuk divaksinasi kerana berita-berita perihal vaksin COVID-19 yang disebarkan melalui**

Television / Televisyen	111	27.4%
Radio / Radio	3	0.7%
Newspaper / Surat khabar	9	2.2%



News websites / Laman sesawang berita	89	22.1%
Social media (Facebook, Twitter, etc) / Media sosial (Facebook, Twitter, etc)	135	33.3%
Social circle (family, friends, co-workers and etc) / Lingkungan sosial (keluarga, rakan-rakan, rakan sekerja dan etc)	52	12.8%
Other	6	1.5%
<b>I decided to not get vaccinated because of the news about COVID-19 vaccine spreaded through / Saya membuat keputusan untuk tidak divaksinasi kerana berita-berita perihal vaksin COVID-19 yang disebarkan melalui</b>		
Others	268	66.2%
Social media (Facebook, Twitter, etc) / Media sosial (Facebook, Twitter, etc)	69	17.0%
Social circle (family, friends, co-workers and etc) / Lingkungan sosial (keluarga, rakan-rakan, rakan sekerja dan etc)	27	6.7%
Television / Televisyen	19	4.7%
News Websites / Laman sesawang berita	19	4.7%
Newspaper / Surat khabar	2	0.5%
Radio / Radio	1	0.2%

Based on the data analysis in table 2, we can conclude that the public have shown a positive reaction towards COVID-19 vaccine distribution in Malaysia and are open to the suggestion of getting the vaccine for themselves. This can be supported with the data provided by JKJAV (2021) where as of July 13th 2021, the amount of people registered for the COVID-19 vaccine have reached 17,891,932 and are estimated to steadily increase. This could have been attributed to

continuous news reported locally and internationally of how successful the vaccine has been in curbing the spreading of coronavirus and their rapidly multiplying variants.

Through the data analysis in table 1, we can also see that the public weren't really fond of how the COVID-19 vaccine registration, queueing, and distribution system in Malaysia was handled. Many countries started their route with the plan already figured out but Malaysia were left behind a few steps back. Malaysia was still preparing for the right platforms to help with registration, what vaccines are suitable for urban and rural areas, waiting to be listed to be able to buy vaccines, and classifying the queueing system based on the age group and level of urgency which inadvertently pushed back our vaccine distribution rate slower than other countries. While the rest of the world especially vaccine-developing countries and the first-world countries started their vaccination process in December 2020, Malaysia only got their supply of vaccine on February 2021 and only managed to passed the 5% vaccination rate on March 25 while European countries already passed the 10% vaccination rate on the same timeline (Mathieu, 2021). This matter is concerning as the COVID-19 related mortality rate is starting to increase rapidly and among the contributors for the demise in this country are the slow vaccine distribution to the public.

According to the data analysis in Table 2, we could have observed that the public were mostly well informed on current news and information about COVID-19 vaccines with the help of mass media and their positive decisions to be vaccinated are also influenced by this factor. According to Toha Makhshun & Khalilurrahman (2018), mass media holds a crucial role in delivering information and also the benchmark of the government and their intelligence. With the recent escalation of anti-vaxxers who spread their propagandas through social media, a one step ahead should be taken by those who are responsible for this matter. The government can use their power over media like the broadcasting and newspaper industry to instruct more news that shows the positive impacts that vaccines have to those who take it and the consequences to those who didn't. The authorities should mobilize all forces through the nooks and crannies of the Internet and eradicate the false news and theories brought by the anti-vaxxers. In this important mission to help rectify any stigmas or misinformation among the public regarding the COVID-19 vaccine, medical experts should also utilize all media platforms available such as news websites, television, radio and social media to educate the masses about the truth and hopefully sway their decision on the path that helps their loved ones, the community, and all humankind.

For the second section, there were twelve questions asked. These questions were distributed to the public to see the level of correspondent's awareness towards COVID-19 vaccine.

**Table 3: Level of public's awareness towards COVID-19 vaccine**

<b>AWARENESS TOWARDS COVID-19 VACCINE</b>	<b>MEAN</b>
I will continue taking safety precautions even after getting the COVID-19 vaccine. / Saya akan terus mengambil langkah keselamatan walaupun sudah mendapat vaksin COVID-19.	3.82
I believe that COVID-19 vaccination is an important initiative to help stop the pandemic. / Saya percaya bahawa vaksinasi COVID-19 adalah inisiatif penting untuk membantu menghentikan wabak Covid-19.	3.81
For me, taking the COVID-19 vaccine is necessary for myself. / Bagi saya, mengambil vaksin COVID-19 adalah perlu untuk diri saya.	3.80
I am keen to get the COVID-19 vaccine. / Saya berminat untuk mendapatkan vaksin COVID-19.	3.75
I still need to get the vaccine even if I have recovered from the COVID-19 virus. / Saya masih perlu mendapatkan vaksin walaupun saya sudah sembuh dari virus COVID-19.	3.62
I am confident in the effects of the vaccine to help battle COVID-19 virus. / Saya yakin akan kesan vaksin COVID-19 untuk melawan virus COVID-19.	3.61
I believe if I am infected with COVID-19 after being vaccinated, the side effects are less severe. / Saya percaya jika saya dijangkiti COVID-19 setelah divaksin, kesan sampingannya kurang teruk.	3.60
I believe in the safety of COVID-19 vaccine. / Saya percaya dengan keselamatan vaksin COVID-19.	3.56
I believe in the COVID-19 vaccine ingredients. / Saya percaya dengan bahan-bahan yang terkandung dalam vaksin COVID-19.	3.47
For me, the vaccine helps to keep me from getting infected by COVID-19 virus. / Bagi saya, vaksin ini membantu saya agar tidak dijangkiti virus COVID-19.	3.44
I believe pregnant or breastfeeding women can choose to be vaccinated safely. / Saya percaya wanita hamil atau wanita yang sedang menyusui boleh memilih untuk divaksin dengan selamat.	3.39

I believe that I will be safe once I have taken the COVID-19 vaccine / Saya percaya saya akan selamat setelah mendapatkan vaksin COVID-19	3.36
<b>OVERALL</b>	<b>3.60</b>

Table 3 above shows the respondent’s awareness towards COVID-19 vaccine. Based on the findings, most of the respondents who answered the questionnaires stated that they are aware of vaccination which is (M=3.82). This has been supported by Messonnier (2019) that he says that when you delay getting a vaccine, you have an unnecessary risk during the period of time that you could have been vaccinated. So, everyone must grab the opportunity for a better life. All approved vaccines are provides protection against severe infection, hospitalization and death from COVID-19. If you are fully vaccinated, you can resume activities that you did prior to the pandemic. Besides, most respondents are also aware about the importance of COVID-19 vaccines (M=3.81). This is supported n by Fernando P. (2020), a two-dose of vaccines conferred 95% protection against COVID-19 in persons 16 years of age or older. Safety over a median of 2 months was similar to that of other viral vaccines. However, the majority of respondents are mostly aware about the importance of COVID-19 vaccines. Overall. the average mean of public’s awareness towards COVID-19 vaccine is (M=3.60). This has been supported by Phillips E.J (2020), it is critical that we focus on safe and efficient approaches to implementing mass vaccination. In the future, these new vaccines may mark the beginning of an era of personalized vaccinology in which we can tailor the safest and most effective vaccine on an individual and a population level.

For the final section, there were eleven questions asked. These questions were distributed to the public to see the level of correspondent’s acceptance towards COVID-19 vaccine.

**Table 4: Level of public's acceptance towards COVID-19 vaccine**

<b>Acceptance towards Covid-19 Vaccine</b>	<b>Mean</b>
I am willing to take the COVID-19 vaccine / Saya bersedia untuk menerima vaksin COVID-19	3.79
I will make time to attend the COVID-19 vaccination appointment that has been fixed/ Saya akan meluangkan masa untuk hadir temu janji vaksinasi COVID-19 yang telah ditetapkan	3.79
I am determined to encourage people around me to take the COVID-19 vaccine / Saya berazam untuk menggalakkan orang sekeliling saya untuk mengambil vaksin COVID-19	3.73
I am excited to take the COVID-19 vaccine / Saya teruja untuk mengambil vaksin COVID-19	3.65
I am encouraged to get vaccinated after seeing people I know got vaccinated / Saya bersedia untuk divaksin selepas melihat orang yang saya kenal telah divaksin	3.65
I am open to accept COVID-19 vaccination recommendation from people I know / Saya terbuka untuk menerima cadangan untuk divaksin daripada orang yang saya kenal	3.62
I am confident that the vaccine is effective to provide optimum protection from COVID-19 virus / Saya yakin vaksin ini berkesan untuk memberikan perlindungan optimum daripada virus COVID-19	3.59
I agree if only vaccinated individuals are allowed to travel or attend social events in the future / Saya bersetuju jika hanya individu yang telah divaksin dibenarkan untuk melancong atau menghadiri acara sosial pada masa akan datang	3.55
I am not bothered by the anti-vaccines movement against COVID-19 / Saya tidak terganggu dengan gerakan anti-vaksin menentang kewujudan COVID-19	3.54
I gather as much information regarding the COVID-19 vaccine / Saya mengumpulkan sebanyak maklumat yang mungkin berkenaan dengan vaksin COVID-19	3.50
I am willing to pay for the COVID-19 vaccine if needed to / Jika perlu, saya bersedia membayar untuk mendapatkan vaksin COVID-19	2.98

<b>OVERALL</b>	<b>3.58</b>
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Based on the Table 4 findings, the public’s acceptance towards COVID-19 vaccination has been evaluated. Most respondents expressed their willingness to get vaccinated (M=3.79) with COVID-19 vaccine. This is supported by statistics from The Special Committee on COVID-19 Supply (JKJAV, 2021) that showed approximately 17.7 million vaccination registration as of July 2021. Besides that, most respondents are also willing to make time to attend their vaccination appointment (M=3.79) that has been fixed. This is proven by the statistics from CovidVax.Live Malaysia which showed our daily vaccination rate has reached approximately 300 thousand doses per day. Plus, despite Movement Control Order (MCO) or Enhanced Movement Control Order (EMCO), people would still go out for their vaccination as the statistics showed that the highest number of 376,909 doses were given out on 8th July 2021. However, when respondents were asked about their willingness to pay for the vaccination, the majority agreed but there were also respondents who were quite reluctant (M=2.98). Overall, the average mean of public’s acceptance towards COVID-19 vaccine is (M=3.58) .

**CONCLUSION**

Based on the findings, we can conclude that the public in Malaysia have accepted COVID-19 vaccine and proves that Social Cognitive Theory (SCT) is true and people are influenced by the society and the environment around them, especially when making important decisions. Our research questions’ findings can be arranged as per following:

Level of Awareness	3.60
Level of Acceptance	3.58

The awareness and acceptance rate of the COVID-19 vaccine among the Malaysian population in this research is positively high. The Malaysian government and other related agencies must target their campaign to address the concerns reported here about the vaccine and prepare to implement the mass immunization programme for COVID-19 for Malaysian citizens. In implementing the nationwide COVID-19 vaccination programme, researchers must continue to

investigate vaccine hesitancy and health education must be prepared to address any concerns that may arise during the programme. This contributes to affecting the factors of acceptance towards COVID-19 vaccine. From these questions, we could see a trend where the level of public's trust on vaccine's safety and ingredients is no longer an issue for them to be reluctant to take the vaccine. Other than that, our respondents had also proven that they are more convinced to trust news about the COVID-19 vaccine from reliable sources such as official social media with the example from the Ministry of Health and official news sites rather than believing the conspiracy theories or propaganda that had been voiced out by the anti-vaccines movement. Moreover, speaking of the rate of vaccination in Malaysia, it brings public concern as they have been looking forward to getting vaccinated in order to achieve herd immunity as soon as possible and the public also generally agreed that vaccine distribution system in Malaysia can be vastly improved so hopefully the findings gathered could be used to accelerate COVID-19 vaccine dispersal to the masses.

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