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HEY THERE! I AM USING WHATSAPP: A STUDY ON THE LEVELS AND PATTERNS OF WHATSAPP'S OFFICIAL USAGE AMONG MALAYSIAN UNIVERSITY ACADEMICIANS

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ABSTRACT

Today, the highest reach messaging app is WhatsApp, compared to any other channel. Undeniably, having more than a billion users, the top messaging platform's users are actively exchanging messages, making voice and video calls, sharing documents and pictures, sharing their stories just like other social media apps around the world, free of charge. In WhatsApp usage behavior, Malaysia is considered as digital forerunner because 97% of the Malaysian population uses WhatsApp daily. This research paper provides useful insights about the levels and patterns of WhatsApp usage in Malaysian public and private universities as a means of official communication. The paper discusses the demographic details of 328 respondents and their responses on the patterns and levels of WhatsApp usage at work. The results explained with the help of charts and tables, confirm the high levels of WhatsApp's official usage among university academicians in Malaysia. The results further explained the patterns, frequency and type of WhatsApp usage in official communication among superiors, subordinates, colleagues etc. It also confirms that most of the staff uses WhatsApp for official communication with colleagues and subordinates but do not prefer much with superiors. The study shows some interesting insights about this medium of communication.

Contribution/ Originality: The study provides a detailed investigation about levels and patterns of WhatsApp for official communication. The same study can be applied on any other source of medium in other industry where that medium is widely used.

1. INTRODUCTION

The information and communication technology and its application have become key tools and had a revolutionary impact on how we see the world and how we live and have been in existence. This impact makes information and communication technology easy to access work especially to disseminate the information irrespective of location and time (Osoba and Adesoji, 2019).

The Malaysian government, in its development plans, has been focusing much on making Malaysia into a major hub of Information and Communications Technology (ICT), by promoting e-commerce and R&D activities on soft factors of ICT developments and upgrading ICT infrastructure. The government has been investing heavily in the country's ICT sector, enabling the organisations to utilise their resources to optimise efficiency (Mahomed *et al.*, 2017). In particular, the Higher Educational Institutes (HEIs) in the country, being the hub of knowledge, innovations and social change, have the responsibility to lead in developing a work culture based on ICT (Ministry of Higher Education of Malaysia, 2007). ICT has a central role in maintaining the quality of higher education in Malaysia, and it will be a basis for a competitive advantage of the universities (Maznah and Hussain, 2004). In spite of the wide-ranging efforts and massive investments made by the Malaysian government to promote ICT in HEIs, literature has pointed out that Malaysian HEIs are not very consistent with the adoption of these technologies (Mahomed *et al.*, 2018). Among these technologies, Social media and social networks carry significant place for communication and sharing of knowledge within the organisation (The Malaysian Public Sector ICT Strategic Plan, 2016). The new social networks like WhatsApp, have seen histrionic growth Karapanos *et al.* (2016) with highlights confirming a remarkable growth of up to one million users per day, reaching some 1 billion users with a daily involvement which is better than its industry standard (WhatsApp.com, 2019). A study of 254 WhatsApp users by Karapanos et al. (2016) found that WhatsApp has unlocked new opportunities for instant communication, enabling the creation of micro-communities, and supporting ornately the social practices such as collective lifelogging and reminiscing, which makes WhatsApp more than merely an instant messaging tool.

Another recent study by Star (2016) states that 97 percent of the Malaysian population is using WhatsApp regularly; the rest 3 percent use it less than once, monthly. This stat makes Malaysians as Digital frontrunners, compared to other nations. The term "digital frontrunners" refers to those young people who are advanced digitally by using internet on their phones. The respondents of this survey were from Malaysia, Thailand, Pakistan, Serbia, Hungary, Sweden and Norway. The sample population ranged from 16 to 35 year old youth. The report suggested that 62 percent of respondents in Malaysia consider mobile apps the "most important" communication service available to them on a mobile phone. The study was carried out in the last quarter of year 2015 from a sample of 5,600 respondents (Star, 2016).

Although these social networks have replaced the traditional channels of communication within organisations because of their swiftness yet organisations have formal channels, and they are still investing in the traditional channels e.g., e-mail. It is still ambiguous that the messages being communicated through social networks should be considered as formal or informal. However, since the use of social networks like WhatsApp is dominating other formal channels of communication, the purpose of the study is to see the usage patterns of WhatsApp in Malaysian public and private universities. To increase the level of online communication and knowledge sharing, universities and HEIs use mobile devices (Amry, 2014). Therefore, for the same purpose, many HEIs are using WhatsApp for the development of communication through discussion forums, knowledge sharing through text messages and mobile social networks and web-based learning (Mistar and Embi, 2016). The advancements in mobile technology has made sending and receiving of information more quick as a result of proliferation of use of technology in communication. With the advancement of mobile communication technology, platforms have come up and have been adopted by many who find them appealing. One of these platforms is WhatsApp, whose adoption rate has enormously grown from its inception in 2009, with the current number of users is surpassing 1 billion in over 180 countries (WhatsApp.com, 2019). In Malaysia, 97 percent of mobile users use WhatsApp. Therefore, with the current growth rate, the need to understand the usage and the satisfaction that users are getting from it cannot be overlooked. WhatsApp is one of the most commonly used social media nowadays with user number of more than 1 billion around the world (WhatsApp.com, 2019) where 97 percent of Malaysians are using WhatsApp daily (Star, 2016).

2. LITERATURE REVIEW

2.1. Information Technology and Organisational Communication

The new technologies have been a significant contributor to the evolution of and growth in the global economy over the past decades. With the introduction of computers and digital transmission networks, new forms of organisational and personal information and communication technologies (ICTs) have arisen, diffused, and been incorporated into organisations' and people's lives (Rice et al., 2017). These include computer systems, e-mail, voice mail, video-conferencing, virtual collaboration, texting, mobile phones, and social media.

2.2. WhatsApp

Jan Koum and Brian Acton who worked for twenty years at Yahoo, later founded WhatsApp. WhatsApp joined Facebook in 2014 but continued to operate as a separate app with a laser focus on building a messaging service that works fast and reliably anywhere in the world (WhatsApp.com, 2019).

The name WhatsApp is a pun on the phrase What's Up which means "What's happening" or "What's the matter"- a phrase generally used to ask how about of friends, family, and colleagues.

WhatsApp started as an alternative to SMS. Now it supports sending and receiving a variety of media: text, photos, videos, documents, and location, voice calls, video calls and conference calls etc. WhatsApp messages and calls are secured with end-to-end encryption, meaning that no third party including WhatsApp can read or listen to them. WhatsApp (WhatsApp.com, 2019) undoubtedly is now the most is the world's most common instant messaging app, used by billions of people around the world (Statista, 2018). Because of its secured communication system, in the recent past, WhatsApp has made its presence everywhere available from classroom (Bouhnik et al., 2014) to lending money in Durban, from professional cooks to monitor election fairness in South Africa and even for issuing court summons in India (Daniel et al., 2019) to name just a few examples. This app has a very low cost efficient and effective way of communication within and outside organisations, institutions and businesses (Daniel et al., 2019).

With the continuous development of various mobile devices or smartphones, the traditional way of Short Message Service (SMS) has been replaced by instant messaging applications that make the communication process more real-time (Rianto et al., 2019). WhatsApp mobile technology has been of immense value in this respect, as it is used in universities (Abraham and Fanny, 2019).

WhatsApp is one of the finest illustration of setting new trends in the society. It allows users to discuss and share a large of opinions because it is secure, and quick to use. It helps the users to raise their personality and by increasing participation in discussions (Regina et al., 2017).

Undeniably, having more than a billion users, the top messaging platform's users are actively exchanging messages, making voice and video calls, sharing documents and pictures, sharing their stories just like other social media apps around the world, free of charge. WhatsApp developers had initially released the phone number-based messaging app for simple communication; however, it took to the internet like a storm. The popularity of the free messaging app has got the developers to keep upgrading more and more features on WhatsApp. However, though the features are slowly coming into existence (compared to other favorite apps which already have many of them included), on WhatsApp. Though users could say that other apps were already ahead of WhatsApp, a slow implementation works well in WhatsApp's favor. First, users get time to learn and use every feature as and when they are released. If one has all features already there, they may not remember half of them at use. Moreover, lastly, each feature is rolled out after thoroughly testing for efficiency, data saving, and performance (WhatsApp.com, 2019). WhatsApp offers a wide array of opportunities for the users. Just like many social media platforms, it provides a platform for entertainment, education, collaboration, instant sharing of information as well as maintenance of a community (Kumar and Sharma, 2017). Unlike the network operator's short message service (SMS) where the message sent is delivered to the recipient with or without their consent, WhatsApp gives the

message recipient the leeway to accept or reject messages from different recipients. Also, WhatsApp has the capability of group-formation where a message can reach different recipients. The maximum number of group members that WhatsApp can accommodate currently stands at 256 (WhatsApp.com, 2019).

Until date, WhatsApp has released a lot of features that you can use for messaging. Apart from messaging features, there are several tweaks and tricks that you can do with WhatsApp. There are plenty of features that make use of WhatsApp in HEIs more attractive as outlined by Bouhnik *et al.* (2014); Kadam and Mhatre (2016); Nyasulu and Dominic (2019). Some of the updated features are as follows:

1. Send a single message to multiple people at once.
2. No limitation on the size of a message.
3. Format your text e.g., bold, italic or strikethrough.
4. Save data when using WhatsApp on Mobile networks.
5. Mute chats and groups.
6. Control your privacy.
7. Share documents.
8. Read messages without blue ticks.
9. Stop auto download of photos and videos to save data.
10. Add dates to your calendar.
11. Add shortcuts to your home screen for individual chats.
12. Use WhatsApp on your PC.
13. Send messages to yourself.
14. Transfer files between PC and mobile.
15. Protect your chats – disable notification preview.
16. Make voice calls.
17. Send different emojis.
18. Quote messages within chats.
19. Block unwanted people and spam.
20. No username and password is required.
21. Delete multiple chats.
22. Star messages.
23. Mark as unread.
24. Reply directly from notification bar.
25. Backup to Google drive.
26. Backup/Export chats and media to email.
27. Change wallpaper.
28. Use different languages.
29. Search messages.
30. Get early updates.
31. Know who has read your messages in a group.
32. Send your location with maps.
33. Send and receive money with FreeCharge.
34. Know who send you a message if you don't have them on your contact list. – Truecaller.
35. Share contacts.
36. Send photos from the gallery using the camera icon too.
37. Pull back your accidentally sent messages.
38. Transfer WhatsApp from old phone to new.

WhatsApp is not only used because of cost saving (Ahad and Lim, 2014) but also for enacting friendships, groups, and communities, awareness and notification through media exchange (O' Hara *et al.*, 2014).

2.3. *WhatsApp as means of Organisational Communication*

WhatsApp has become the most significant mobile text messaging service in the world and is very popular in South Africa, Malaysia, Argentina, Singapore, Hong Kong, and Spain (Aharony and Gazit, 2016). WhatsApp is rated as a tremendous societal connection that connects individuals to get and share the humongous global information rapidly. It is also as part of the social media growth. Whenever humans are sharing stories and influencing others, it is viewed as social networking (Mistar *et al.*, 2019).

The tremendous and somewhat recent impact of WhatsApp as a form of communication is triggering academic research on the speech that characterises this IM system (Sánchez-moya and Cruz-Moya, 2015). Berghaus and Back (2014) suggested that there is a lack of research about the adoption of mobile technology in an organisational context. Past studies about computer-mediated communications, which discussed their pros and cons, have focused mainly on email, instant messaging and text messaging. Mobile text messages have changed the interpersonal communication as more people are using text-based communications rather than face-to-face communications. These studies are associated with the usage of this technology by teenagers and young people. These platforms are popular among people because they are simple, quick and cheap (Aharony and Gazit, 2016). However, less attention has been given in the literature to the newer CMC technologies such as WhatsApp (Sultan, 2014).

Some studies from the literature regarding usage and adoption of the WhatsApp, are discussed below:

Church and De Oliveira (2013) conducted semi-structured and open-ended interviews with 9 Spanish people out of which 5 were men, and 4 were women. They compared WhatsApp and SMS usage, and concluded that WhatsApp messages are exchanged more often, are more conversational, are used to communicate within closer social circles, and are used more often for group-based communication.

A survey-based study of 20 respondents of a Malaysian university, Mistar and Embi (2016) concluded that the use of WhatsApp is significant in helping the students learning the language better and enhancing their proficiency in using the English language. The study suggests that students should be encouraged to use WhatsApp and institutes should provide better facilities in creating a better learning environment regarding the latest learning technologies. According to them, WhatsApp usage in education carries a positive response regarding the learning of students. Even though many other apps are available, but in the Malaysian context, 97 percent of the population is using WhatsApp. Also, because of many reasons, the 'daily' use of SMS communications services has dramatically declined too. Therefore, WhatsApp is popular compared to other applications (Mistar and Embi, 2016).

An experimental study done by Amry (2014) suggests that students find WhatsApp easy for learning purposes, helpful for problem-solving and resolves to learn difficulties related to the learning process or learning content distributed through WhatsApp, knowledge sharing, etc (Amry, 2014).

Using UTAUT, Robin *et al.* (2017) conducted a study to find out the intention to use WhatsApp, and they concluded that people use WhatsApp principally because it is fun, enjoyable, very entertaining, something more inherent to an entertainment application than to a messaging application. Similarly, Sultan (2014) in an investigation related to mobile text messaging, suggested that users of WhatsApp turn to it as a medium that enables them to keep contact with family members and friends, as well as for entertainment and acquiring information (Sultan, 2014). Hameed *et al.* (2012) argue that even though adoption has been broadly examined in the literature, however, knowledge on IT adoption for 'organisations' is still limited. The existing work only discusses the adoption process until the innovation is acquired, but does not explore whether the innovation is permanently and effectively integrated into the organisations (Hameed *et al.*, 2012). However, Berghaus and Back (2014) state that when mobile devices enter the workplace, companies themselves face an adoption process, in having to integrate these devices into the existing IT infrastructure (Berghaus and Back, 2014). Vusparatih

(2018) conducted a qualitative multi-method study of interviews, observation and literature review about WhatsApp groups in organisations. She concluded that the WhatsApp group is a form of organisational communication that merely is transferred into the form of text communication on mobile phones. Also, the organisational structure is still inherent in it and only serves as a bridge/form of interim communication because the primary form of communication is still in the form of correspondence and face-to-face meetings. However, conflicts often arise due to lack of accurate word selection, emoticons, or expressions when communicating in the WhatsApp groups (Vusparatih, 2018). Modak and Mupepi (2017) conducted a study about the small business using WhatsApp According to them, WhatsApp technology can be useful for small and large-scale organisations to create, diffuse and distribute active business and social relationships in advancing economies. Furthermore, WhatsApp messaging can be used for data collection and which later can be used for sales and marketing purposes (Modak and Mupepi, 2017). A study by Balkrishan *et al.* (2016) of 180 emergent users of WhatsApp, found the factors which are causing massive adoption of WhatsApp. Some of these factors are the simple registration process, simple way of interaction, limited choices, liberating users from difficult tasks to operate and letting go the features which were not useful for users (Balkrishan *et al.*, 2016).

The study describes that many people use and/or plan to utilize WhatsApp for business purpose. This app is actually useful for all the business because of its features, for example, a transport business owner sends pictures of automobile parts to vendor. Customers of a tailor would want the tailor to send them images of new designs via WhatsApp so they can save time and resources by avoiding visit to his shop. A local government worker can easily report the progress to his seniors via WhatsApp. A politician can receive responses and complaints from his constituency via whatsapp and can resolve the issues by forwarding them to the concerned departments. Basically, WhatsApp reduces the costs and efforts in almost all fields of life due to its convenient nature (Balkrishan *et al.*, 2016). The flexibility and features of this app make it useful for small as well as large scale organisations to make, integrate and exoand the social and business terms. This will help in creating cost effectiveness and the application can be used for market research purposes to create exploitable marketing and sales, by taking a previous, related business developments (Modak and Mupepi, 2017). ProfitBooks.net (2015) has demonstrated from their experience that WhatsApp can be used for small business and they have listed five ways that it has been successfully used in India. These steps are about using WhatsApp for internal team communication, customer communication, customer support, marketing & promotions, and creative usage of WhatsApp for business.

Juliandi (2016) states that at present, social media is already becoming a part of the organisational culture in the workplace. He surveyed 300 employees in the city of Medan, and the data research collection used questionnaires. He concluded that in the era of information technology, the management of the organisation must understand and value the culture of social media at the workplace. They concluded that the culture of social media influences the knowledge transfer and work performance of employees. Accordingly, management should be resetting the strategy for human development, which focused on information technology. The culture of knowledge sharing using social media will increase the knowledge and skill of the workers. The consequence of ignoring the reality will block the organisational achievement in the future. From the above literature review, it can be seen that most of the focus of studies on WhatsApp has been on how different stakeholders utilise it and also the outcomes of using it. However, there are insufficient studies addressing, in particular, the "Organisational usage of WhatsApp as the mean of internal communication." Therefore, this leaves a gap in the field of research. Studying usage of WhatsApp in organisations as a means of internal communication will fill in this gap.

2.4. E-Mail V/s WhatsApp

In almost all the organisations, email has the status of formal mean of communication. In this section few stats about E-mail, v/s WhatsApp are discussed.

Number of WhatsApp users have reached the similar number of Gmail (the most commonly used email) users. It means that this instant messaging app is more popular than email. Because when WhatsApp was launched in year 2009, that time, Gmail had 150 million users. However most of the companies use email for the communication purpose, yet, these instant messaging apps are more convenient and capable to do that for a quicker response/communication. Since instant messaging apps are being used for a lot of new things and businesses from customer services, to marketing, after sale feedback etc., it leaves Email destined to the museum. Even though Gmail is also growing at some pace due to adaptation of its mobile app, however, its growth is likely to dwindle soon. There was only so much the horse carriage could be reinvented before the car took its place.
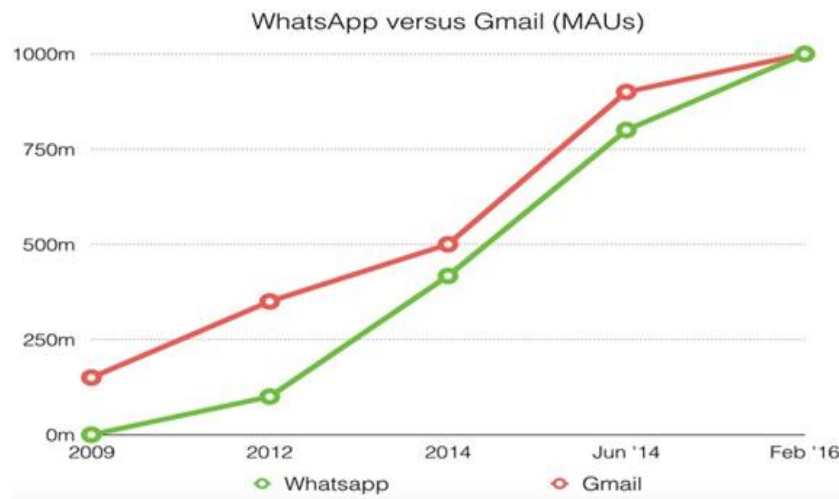

Figure-1. WhatsApp v/s Gmail.

Figure 1 explains the survey results by statista.com which compared WhatsApp to email and other channels in year 2017, WhatsApp has experienced an exceptional growth rate. Even though apparently, WhatsApp can replace email, at least for personal usage, a survey by statista.com shows that the number of email accounts is also predicted to be increased. The survey was done in the year 2017.

2.5. Whatsapp Statistics

Another survey done by statista.com in January 2018, states that the most popular mobile messenger app (based on several monthly active users) is WhatsApp as more than 1300 million people are active monthly. The historical data from April 2013 to December 2017 states that where starting from 200 million users of WhatsApp, it leads to 1500 million users in the year 2017. The number is expected to grow at 1609 million by the year 2020.

The popularity of WhatsApp is evident from the fact that merely in January 2018 the title of "the leading Android app (worldwide)," was won by WhatsApp having 86.1 million downloads and the same got by iPhone app by having 11.44 million (Statista, 2018). The daily multimedia message volume of WhatsApp was 1600 million by February 2016, around the world. In January 2018 WhatsApp was ranked number 3rd as the most popular social network worldwide by having 1300 million active users. Facebook leads with 2167 million active users, lagging youtube behind with 1500 million active users (Statista, 2018). However, it is essential to know that Malaysia is one of the leading countries with a population who are active WhatsApp users.

2.6. Sampling Technique and Sample Population

For the purpose of this research, survey method was adopted using simple random sampling. A sample population of 328 academic staff of Malaysian public and private universities was chosen. Questionnaires were distributed and collected on the same day by the researcher.

3. DATA ANALYSIS

Data analysis was done SPSS and following are the results of the responses.

3.1. Demographic Details of Respondents

In this section, the demographic characteristics of the respondents are discussed. The later section discusses the descriptive statistics of the respondents' profile which includes the sub-sections, i.e., gender, age group, education level, religion, race, job position and university type of respondents.

3.1.1. Gender

As shown in Table 1, 56.7 percent of the sample of this study is female, and 43.3 percent are male respondents. There is a total of 186 female respondents in comparison of 142 male respondents.

3.1.2. Age

The respondents varied widely in terms of their age as shown in the Table 1. Majority of the respondents were in the age group of 30-40 years old and below 30 years old with a percentage of 38.7 percent and 33.5 percent respectively. The lowest number of respondents were in the age group of above 54 years old with a percentage of 14 percent. There were 13.1 percent respondents in the age group of 41-50 years old and 14.6 percent of respondents were from the age group of above 50 years old.

3.1.3. Education

Table 1 depicts that majority of the respondents possessed a Ph.D., representing 63.1 percent which comprises of 207 respondents of the total sample. This is followed by 31.7 percent which comprises of 104 respondents possessed a Masters degree, and 5.2 percent of the respondents possessed a bachelors degree which comprises of 17 respondents.

3.1.4. Religion

As shown in Table 1 58.5 percent of the sample of this study is Muslim (192), 18.6 percent Buddhist (61) 17.7 percent Hindu (58) 5.2 percent are Christian (17).

3.1.5. Race

As shown in Table 1 54.6 percent of the sample of this study is Malay (179), 26.5 percent Chinese (87) 14.9 percent are Indian (49), and 4 percent are international (13).

3.1.6. Position

Most respondents are senior lecturers with several 152 and comprising 46.3 percent of the total sample. Lecturers form 25 percent of the population size and are 82 in numbers. Associate professors are 46 in numbers, comprising 14 percent of the total population. Whereas professors are 31 in number and comprising 9.5 percent of the total sample size. The least sample is from teaching assistants which comprises of 5.2 percent and are 17 in numbers.

3.1.7. Type of University

As shown in Table 1 out of total 328 respondents, 174 respondents were from public universities comprising 53 percent of total sample size and 154 are from private universities comprising 47 percent of the total sample size.

Table-1. Respondents' demographic profile.

Demographics	Frequency	Percentage (%)
Gender		
Male	142	43.3
Female	186	56.7
Total	328	100
Age		
Below 30	110	33.5
31-40	127	38.7
41-50	43	13.1
Above50	48	14.6
Total	328	100
Education		
Bachelor	17	5.2
Masters	104	31.7
PhD	207	63.1
Total	328	100
Position		
TA	20	6.1
Lecturer	101	30.8
Senior lecturer	130	39.6
AP	46	14
Professor	31	9.5
Total	328	100
Types of Universities		
Public	174	53
Private	154	47
Total	328	100

4. DESCRIPTIVE ANALYSIS OF WHATSAPP USAGE

This section describes the results of the frequency analysis of each part of the questionnaire about their previous and current usage pattern of internet, smartphone, and WhatsApp. The patterns of respondents' answers are explained with the percentage in each allotted section.

4.1. Patterns of Smartphones, Internet, and Whatsapp Usage

As shown in the Table 2, 32 percent of the respondents said that they are using smartphones for around 5 to 7 years whereas 26 percent said that they are using it for 8 to 10 years and 26 years respectively. Only 10 percent of the respondents mentioned that they are using smartphones for 2 to 4 years and only 6 percent are using for less than two years.

Table-2. Frequency distribution of smartphones.

-	Percentage	Bars
Under two years	6	6
2 − 4 Years	10	10
5 − 7 Years	32	32
8 − 10 Years	26	26
Over 10 Years	26	26
Total	100	

Table 3 depicts that eighty-two percent of the respondents are using the internet frequently every day. However, 10 percent responded with several times a day, and for remaining options, 2 percent responded respectively.

Table-3. Frequency distribution of internet.

Column1	Percentage	Bars
Never use	0	0
About once a month	2	2
A few times a month	2	2
A few times a week	2	2
About once a day	2	2
Several times a day	10	10
Frequently everyday	82	82
Total	100	

The results in the Table 4 show that all the respondents have been using WhatsApp, where 52 percent are using for 5 to 7 years, 24 percent are using for 2 to 4 years, and 14 percent of respondents are using it for over 8 years. However, 10 percent are using for less than 2 years.

Table-4. Frequency distribution of WhatsApp.

Column1	Percentage	Bars
Never used	0	0
Under 2 Years	10	10
2 − 4 Years	24	24
5 − 7 Years	52	52
Over 8 Years	14	14
Total	100	

4.2. Number and Frequency of Whatsapp's Official and Personal Usage

Table 5 explains the official usage of WhatsApp shows variance in its frequency as at maximum 26 percent of the respondents use it for more than 6 times a day to 6 percent uses merely once in a month and 4 percent never use it for official communication.

Table-5. Official usage of WhatsApp.

Column1	Percentage	Bars
Never use	4	4
About once a month	6	6
Once a week	10	10
Once a day	8	8
Twice a day	6	6
3 - 5 times a day	22	22
6 - 10 times a day	14	14
11 - 15 times a day	4	4
More than 16 times a day	26	26
Total	100	

Source: Results of descriptive analysis.

Table 6 explains that personal usage of WhatsApp also shows much variance, but the usage is more frequent in terms of a number of times in a day. As shown in the table, 46 percent of respondents use it for more than 16 times in a day, and only 2 percent of respondents use it merely once in a month.

Table-6. Personal usage of WhatsApp.

Column1	Percentage	Bars
Never use	0	0
About once a month	2	2
Once a week	2	2
Once a day	2	2
Twice a day	2	2
3 - 5 times a day	8	8
6 - 10 times a day	16	16
11 - 15 times a day	22	22
More than 16 times a day	46	46
Total	100	

4.3. Type and Volume of WhatsApp Messages at the Workplace

In Table 7 it can be seen that the frequency of official WhatsApp messages varies from more than 20 messages received by 36 percent to 14 percent who receive 2 or fewer messages per day.

Table-7. Frequency of WhatsApp messages mostly received by respondents.

Column1	Percentage	Bars
Never receive	4	4
Two messages and below	14	14
3 -5 messages	12	12
6 - 10 messages	24	24
11 -15 messages	8	8
16 - 20 messages	2	2
More than 20 messages	36	36
Total	100	

Similarly, Table 8 explains that the frequency of sending official WhatsApp messages varies from more than 20 messages per day by 16 percent of respondents to 2 and fewer messages per day by 26 percent of the respondents.

Table-8. Frequency of WhatsApp messages mostly sent by respondents.

Column1	Percentage	Bars
Never send	6	6
Two messages and below	26	26
3 -5 messages	26	26
6 - 10 messages	12	12
11 -15 messages	8	8
16 - 20 messages	6	6
More than 20 messages	16	16
Total	100	

The Table 9 explains the type of WhatsApp messages in official communication, where 56 percent of the respondents sat that they receive involving WhatsApp messages i.e.; which require further communication however 26 percent respondents mention that they receive un involving messages.

Table-9. Types of WhatsApp messages mostly received by respondents.

Column1	Percentage	Bars
Related to work: Involving (further communication needed)	56	56
Related to work: Uninvolving (no further communication needed)	26	26
Personal	16	16
Other	2	2
Total	100	

Similarly, Table 10 explains that the type of messages sent by the respondents is also involving (68 percent) and uninvolving (20 percent).

Table-10. Types of WhatsApp messages mostly sent by respondents.

Column1	Percentage	Bars
Related to work: Involving (further communication needed)	68	68
Related to work: Uninvolving (no further communication needed)	20	20
Personal	12	12
Other	0	0
Total	100	

The Table 11 depicts that 72 percent of respondents believe that their superiors prefer WhatsApp as a channel of communication; however 28 percent believe otherwise.

Table-11. Superiors' orientation towards WhatsApp.

Column1	Percentage	Bars
Yes	72	72
No	28	28
Total	100	

4.4. Preferred Communication Channel at the Workplace

The Table 12 explains the preference of communication channel by the respondents with their supervisor. 48 percent of respondents prefer to communicate with their superiors via email, and 24 percent prefer via WhatsApp, and merely 28 percent prefer via face to face.

Table-12. Preferred communication channel with superiors.

Column1	Percentage	Bars
WhatsApp	24	24
Email	48	48
Telephone	0	0
Face-to-face	28	28
Others (SMS/Letters/Fax)	0	0
Total	100	

The Table 13 shows the respondents' preference for communication channel with subordinates is different than that of superiors. 34 percent of the respondents prefer WhatsApp as a channel of communication, 26 percent via email, 8 percent via telephone and 32 percent face-to-face.

Table-13. Preferred communication channel with subordinates.

Column1	Percentage	Bars
WhatsApp	34	34
Email	26	26
Telephone	8	8
Face-to-face	32	32
Others (SMS/Letters/Fax)	0	0
Total	100	

The Table 14 shows the respondents' preference of communication channel with their colleagues and peers is also more WhatsApp oriented where 46 percent prefer WhatsApp, 10 percent prefer email, 8 percent prefer telephone and only 36 percent prefer face-to-face.

Table-14. Preferred communication channel with colleagues.

Column1	Percentage	Bars
WhatsApp	46	46
Email	10	10
Telephone	8	8
Face-to-face	36	36
Others (SMS/Letters/Fax)	0	0
Total	100	

5. DISCUSSIONS AND CONCLUSION

The study concludes that all the respondents for this study use WhatsApp where where 52 percent are using for 5 to 7 years. 26 percent of the respondents are using it for more than 16 times a day for official usage and 46 percent are using more than 16 times for personal usage. The official usage of WhatsApp is quite encouraging. 36 percent of the respondents mentioned that they have more than 20 official messages which are work related. Overall 46 percent

of the respondents want to use WhatsApp as official communication channel, 10 percent prefer email, 8 percent prefer telephone and 36 percent prefer face to face.

Various research have revealed that social platforms have billions of users in which more than 80% of the active users are mainly youths (Abraham and Fanny, 2019). However this study reveals that age does not really affect WhatsApp usage. The respondents for this research were aged from baby boomers to millinials and all use whatsapp if they find it easy to use and useful.

Many studies which compared public and private organizations, found different results for both (Mahomed *et al.*, 2018; Elewa and Banan, 2019). However, this study did not find any differences in WhatsApp adoption across two target groups.

Considering WhatsApp usage as formal or informal, within organisations, as the response of the respondent's states that employees use this channel for official communication, means that they consider it as formal mode of communication. However, the legitimacy of the information passed through this channel is still unclear as there must be some rules and regulations to adopt this channel of communication and further research is required on this point.

For future research it is recommended that the same research may be applied in other countries which prefer other social networks.

An interesting fact in the findings of the WhatsApp's official usage is that 46 percent of the respondents prefer to use it with their colleagues (probably for corporate grapevine purpose). A lesser percentage of 34 wants to use it with subordinates and interestingly only 24 percent respondents like to use WhatsApp for official communication with their superiors. A logical conclusion for this preference may be that employees do not want to be quickly available for any quick response to their superiors or they want to maintain power distance with their superior since Malaysia is a high-power distance country (Hofstede *et al.*, 2010). But the same members of the organisation are ok to use this channel with their colleagues and subordinates. And also, 72 percent of superiors prefer to use WhatsApp for official communication.

The results of the descriptive statistics of WhatsApp's official usage are quite encouraging from the usage point of view. However, there are still mix findings where some employees prefer to use WhatsApp for official communication and some do not prefer it.

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