

THE IMPLICATIONS OF VIRTUAL COMMUNICATION IN MANAGING THE COVID-19 PANDEMIC NEW CULTURAL NORMS: A CASE STUDY IN THE NORTHWEST COAST OF SABAH

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Abstract: *The Covid-19 pandemic that swept people across the world brings an inevitable impact on various aspects of life. This has sparked a new norm that promotes the importance as well as the need and dependence on virtual communication for the social life that is no longer compatible with the old norms that are conventional in nature. The main objective of this paper is to examine the implications of virtual communication on rural communities in Sabah during the Covid-19 pandemic by identifying the forms of challenges, contributing factors and adaptation mechanisms that are being practiced. Field studies were conducted at Kudat, Kota Marudu and Pitas districts in North West Coast of Sabah, Malaysia using the combination of both qualitative and quantitative methods, namely participant observation, interviews and questionnaire. The findings found that the challenges or problems faced by the community that are related to the implications of virtual communication involve aspects of teaching and learning, online transactions, career-related matters, daily routines and social relationships. Apart from physical factors such as hill landforms and forest-covered terrain, other factors such as economic status, social relationships, administrative enforcement as well as personal*

aspects such as perceptions, motivation and individual skills also have a significant impact on the challenges and problems of virtual communication among the rural communities. Individuals and organization involved have taken initiatives and implemented several strategies to address these issues. It is hoped that the findings of this paper can contribute useful recommendations with regard to the implications of virtual communication to all parties concerned in dealing with any related issues in the future.

Keywords: *Virtual Communication; New Cultural Norms; North West Coast, Sabah; Challenges and factors; Adaptation Mechanism*

Introduction

Virtual communication has a significant implication in human life. Typically, human communicate face to face to meet social demands. However, the Covid-19 pandemic phenomenon sparked a new reality that has crystalized the role of virtual communication. In the view of adaptation to the reality and new norms, the community needs to transform or challenge the status quo because they no longer live the life of the old norms. Apart from health problems, it also gives impact to various aspects of human life including physical, spiritual, economic, political and social aspects. With regard to social aspect, the conventional way of communication, namely face-to-face communication is affected because the government has implemented the Movement Control Order (MCO), which outlines some rules that must be adhered by the communities to curb the spread of the pandemic, including social distancing and visits or gathering restrictions. Due to these new norms, digital communication or virtual communication is put forth as one of the alternatives to carry out daily routines such as trading transactions, teaching and learning, conducting meetings or workshops and so on.

Virtual communication is the communication that involves the sending and receiving of messages or information using internet, when people communicate without being physically face to face. The term ‘Virtual World’ is associated with several other terms such as cyber world, digital world, internet and so on. In general, virtual communication facilitates relationships or enables communication among individuals from different locations. Despite the fact that virtual communication or virtual transactions were previously quite popular among the community who preferred to use online platforms for transactions or career related matters, yet, it is quite limited to certain needs only. It is usually used as an alternative in situations where face-to-face communication is not possible.

The issue now is that virtual communication can only be fully implemented if the community has the access to media channels or internet networks. Particularly, it can only be enjoyed by certain groups of people. The penetration rate or internet access problem isn’t something new in Sabah. This is proven based on the statistics presented by the Department of Statistics and Malaysian Communications and Multimedia Commission (MCMC) (2018 & 2019), in which Sabah has recorded the lowest penetration rate among all the states in Malaysia in terms of mobile broadband penetration, with 61.9% in 2017 and 65.3% in 2018. In some areas, basic necessities such as electricity and water supply have yet to be addressed properly until today. Thus, the use of virtual communication is rather limited and unavailable to all the communities, especially those in the rural areas. This scenario further widens the gap among the communities, not only the gap between digitally literate individuals and vice versa, but also the gap in various other aspects of the community’s life. This phenomenon will create a huge challenge to the

government and the community in Sabah, which will restrain adaptations to face the life that is characterized by new norms.

Based on these problems, this research seeks to:

- 1) Study the types of challenges or problems as well as contributing factors to carry out virtual communication while dealing with the Covid-19 pandemic among the communities in the Northwest Coast of Sabah.
- 2) Identify the mechanisms practised by the communities in the Northwest Coast of Sabah in overcoming the virtual communication problems while dealing with the Covid-19 pandemic.
- 3) Propose solution mechanisms to overcome the virtual communication challenges while dealing with the Covid-19 pandemic among the communities in the Northwest Coast of Sabah.

It is hoped that the findings can propose recommendations that are beneficial to all parties involved in facing any related issues in the future.

Literature Review

Virtual communication is undeniably important in the era of globalization, modernization and the 4.0 industrial revolution. Many studies found that virtual communication has a significant impact on the community, particularly the graduates and organizational development. For example, a study by Ahlam Abdul Aziz (2016) found that an organization that is good in using communication technologies can achieve objectives more rapidly and able to create competitiveness to other organizations. In studies that investigate the relationship between engagement and satisfaction of social media use among graduates indicated that there is a significant relationship between the purpose of using social media and the satisfaction such as to avoid loneliness or desolation, search for information and entertainment, strengthen relationships (Faradillah Iqmar Omar and Iza Sharina Sallehuddin, 2011), as well as improve communication skills and find contentment when interacting in the virtual world (Norazlah Mat II & Normaliza Abdul Rahim, 2017).

However, the uncontrolled use of virtual communication is associated with some negative aspects of interpersonal communication, physical and muscular development as well as deterioration in academic performance (Naquih Nahar et. al, 2017), erosion of religious values appreciation and human values (Siti Norhanani, 2011), Islamic da'wah (Noor Azaian Abdul Talib, Mohd Yusof Abdullah & Mohd. Azul Mohamad Salleh, 2017), privacy threats, identity theft, cybersex addiction, unreliable news sources, defamation and gossip, malicious propaganda, as well as viruses, pornography, high maintenance costs, anti-social problems, health problems and so on.

Studies have been published on the relationship between the challenges of virtual communication and transactions among merchants in different zones in Sabah. Halina Sendera Mohd Yakin et.al (2019) found that conventional marketing methods through face-to-face communication such as *tamu*, marketplace, stalls and so on still receive good reactions among the merchants and customers in certain locations especially in rural areas due to internet access problems. News reports also revealed that limited access to channels or internet is one of the biggest problems to use virtual communication in teaching and learning, especially to rural students and underprivileged families (Norshazlina Nor Azman, 2017).

Musa (2008) in his book entitled "*Memfaatkan Teknologi Maklumat dan Komunikasi (ICT) untuk Semua*" explained about the government's efforts in providing facilities and internet access so that the community can make the most of ICT. His discussion focused on three main groups, namely individuals, families, and communities. According to Musa (2008), the effectiveness of ICT can be achieved if they overcome the internal and external challenges at the individual, family, and community levels. Both internal and external factors need to complement each other to accomplish successful internet-related programmes or activities. Furthermore, external factors such as facilities at ICT centres, periodic ICT training and programme, trained administrators, support funds and hardware for telecentres, as well as strong support from local agencies also play an important role in fostering awareness of the importance of ICT and the internet at all levels.

Scholars have conducted studies on the challenges of virtual communication, alongside with the establishment and functions of internet centres by targeting rural communities. These studies proved that the internet centre or telecentre does play an important role and has a significant impact on the self and socio-economic development of the rural communities. Marhaini & Abdul Raufu (2014) conducted their study focusing on the relationship between the community informatics and the Rural Internet Centre (PID) programme. A study by Nor Iadah, Zahurin, Huda, Rafidah and Wan Rozaini (2007), raises issues related to PID as a catalyst for the development of knowledge-based community. Zurinah, Jalaluddin and Mohd Asruladlyi (2016) also discuss the role of telecentres in developing smart ICT in rural communities. Meanwhile, Ainin, Noor Ismawati and Rohani (2010) examines the dissemination of ICT by studying the Malaysian government's initiatives to bridge the digital divide that exists between urban and rural communities. Muhamad Sham (2006) looks into the function and role of ICT in the students' development in rural areas, specifically in Kampung Tradisi Lembah Keriang and Perkampungan Felda Bukit Tangga, Changlun, Kedah.

Apart from that, a study by Azlizan, Mohd Nazaruddin and Zainal (2017) discusses the need to build new computer centres to overcome lack of ICT resources among youths in Kubang Pasu District, Kedah. Jalaluddin, Abdul Razaq, Mohd Mahzan and Alfitri (2014) investigates the symbiotic relationship between telecentres and lifelong learning for rural community development. This relationship can help achieve Malaysia's aspiration of creating a thriving, independent, and competitive rural community. Apart from Malaysia, other Asian countries such as Sri Lanka also views the digital divide issue among the rural communities as the main agenda of national development. A study conducted by the Asian Development Bank (2017) discussed the impact, sustainability and inclusion of public ICT centres or telecentres toward rural communities in Sri Lanka. ICT centres should be seen as a technology hub that allows rural children to learn ICT skills and take charge of their own learning as well as to be a catalyst for digital inclusion in the rural areas.

In conclusion, the above studies proved that virtual communication gives both positive and negative implications. Nonetheless, it has a significant impact on the self-development and socio-economic development of the rural communities. The findings of the literature review showed that there is a research gap in terms of the development, role and challenges of virtual communication among the rural community in Sabah, especially in the era of Covid-19 pandemic.

Methodology

Field study was carried out in Kudat, Kota Marudu and Pitas districts by using qualitative and quantitative methods particularly, participant observation method, interviews and questionnaires. Participant observation was carried out at locations including internet centres, secondary schools, district offices and selected villages. Data is obtained through audio-visual recordings and written notes. In-depth interview was conducted with several informants to obtain more detailed data including employees and administrators of district offices, private employees, village heads and villagers, managers and employees of the internet centres, school teachers, Giatmara educators and a university student. A total of 14 informants were interviewed in those districts regarding the internet centres and other related matters. The questionnaire is distributed to 133 respondents from the three districts, which consist of government and private employees, students, teachers and villagers. The questionnaire contains several parts including the form of challenges or internet problems, contributing factors as well as mechanisms practiced by the communities to overcome the internet problems. Quantitative data were analysed using SPSS software. For the contributing factors, 33 items or statements pertaining to economic, physical, social/administrative and personal factors were measured and analysed based on the Likert scale as shown in Table 1 below:

Table 1: The general statistic data for Economic (E1-E7), Physical (F1-F8), Social/Administrative (S1-S10) & Personal (P1-P8) factors

| | | E1 | E2 | E3 | E4 | E5 | E6 | E7 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| N | Valid | 132 | 132 | 132 | 132 | 132 | 132 | 132 |
| | Missing | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mean | | 2.8333 | 3.3333 | 3.3030 | 3.5076 | 3.3030 | 3.9545 | 3.3939 |
| Std. Error of Mean | | .12596 | .11415 | .11276 | .11098 | .11924 | .08925 | .11571 |
| Median | | 2.0000 | 3.0000 | 3.0000 | 4.0000 | 3.0000 | 4.0000 | 3.0000 |
| Mode | | 2.00 | 3.00 | 3.00 | 5.00 | 5.00 | 4.00 | 5.00 |
| Std. Deviation | | 1.44712 | 1.31153 | 1.29556 | 1.27511 | 1.37001 | 1.02536 | 1.32940 |
| Minimum | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Maximum | | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |

| | | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| N | Valid | 133 | 132 | 132 | 132 | 132 | 133 | 133 | 133 |
| | Missing | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Mean | | 3.7519 | 3.3712 | 3.3561 | 3.0303 | 3.2121 | 1.8195 | 2.2256 | 3.0000 |
| Median | | 4.0000 | 3.0000 | 3.0000 | 3.0000 | 4.0000 | 2.0000 | 2.0000 | 3.0000 |
| Mode | | 5.00 | 3.00 | 5.00 | 3.00 | 4.00 | 1.00 | 2.00 | 4.00 |
| Std. Deviation | | 1.26973 | 1.14855 | 1.40952 | 1.15209 | 1.28426 | 1.00630 | 1.01963 | 1.43019 |
| Minimum | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Maximum | | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Sum | | 499.00 | 445.00 | 443.00 | 400.00 | 424.00 | 242.00 | 296.00 | 399.00 |

| | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| N Valid | 132 | 132 | 132 | 132 | 132 | 132 | 132 | 132 | 132 | 132 |
| Missing | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mean | 2.9848 | 3.8106 | 2.6439 | 2.8485 | 3.5379 | 3.2197 | 3.3561 | 3.1742 | 3.6970 | 3.7879 |
| Median | 3.0000 | 4.0000 | 3.0000 | 3.0000 | 4.0000 | 3.0000 | 3.0000 | 3.0000 | 4.0000 | 4.0000 |
| Mode | 4.00 | 5.00 | 3.00 | 3.00 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 5.00 |
| Std. Deviation | 1.29582 | 1.37665 | 1.21776 | 1.05197 | 1.15518 | 1.10041 | 1.10607 | 1.08773 | 1.09781 | 1.17239 |
| Minimum | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Maximum | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Sum | 394.00 | 503.00 | 349.00 | 376.00 | 467.00 | 425.00 | 443.00 | 419.00 | 488.00 | 500.00 |

| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
|----------------|---------|---------|---------|--------|--------|---------|--------|---------|
| N Valid | 133 | 133 | 133 | 133 | 133 | 133 | 132 | 133 |
| Missing | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Mean | 2.4511 | 2.5263 | 1.8496 | 1.8571 | 1.8571 | 2.3835 | 2.1212 | 2.9098 |
| Median | 2.0000 | 2.0000 | 1.0000 | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 3.0000 |
| Mode | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 3.00 |
| Std. Deviation | 1.09036 | 1.48517 | 1.02614 | .99349 | .96250 | 1.33554 | .95734 | 1.38967 |
| Minimum | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Maximum | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Sum | 326.00 | 336.00 | 246.00 | 247.00 | 247.00 | 317.00 | 280.00 | 387.00 |

Findings And Discussion

Types of Challenges for Virtual Communication

Challenges or barriers with regard to the implications of virtual communication among rural communities at the research site involve several aspects. Quantitative and qualitative data show that the community is experiencing problems in terms of teaching and learning, online transactions, career-related matters, daily routines as well as social relationships before and during the Covid-19 pandemic.

In terms of teaching and learning, teachers and students at SMK Tandek 2, Kota Marudu revealed that they experienced virtual communication problems since the establishment of the school about five years ago and the problem became more severe when the Covid-19 pandemic erupted. Besides slow internet access, this school also struggled with lack of multimedia or ICT facilities such as computers, internet modems and so on. According to the school's ICT coordinator, SMK Tandek 2 is supplied with only one modem compared to other schools, which usually have three modems. Through the observations, the computer labs and multimedia rooms in the school are indeed not equipped with ICT equipment. The bookshelves in the library are still empty. Generally, the students there are from underprivileged families and do not have gadgets and internet access such as smartphones. This makes it difficult for teachers and students to conduct online classes before and during movement control order. Many students are falling behind in terms of learning. In addition, teachers and students of Giatmara, Kudat also reported problems in joining training/workshops and practical work online during the movement control order because most of them live in areas that are affected by internet access problem or poor internet connection.

Apart from the teaching and learning aspect, some communities who work with the government or the private sector also have difficulties to perform daily tasks such as attending online meetings. The villagers of Buang Jamal, Kudat responded in the interview that internet problem is not the only challenge they're facing. In fact, the village also doesn't have tap water supply and has to use a water pump for daily usage. Similarly, the villagers of Tajau Laut, Kudat are experiencing poor internet connectivity even though there are substations. In addition, the electricity supply is also said to be often cut off and caused disruption to the daily activities of the villagers who are mostly fishermen. In addition, there are not many TELCO options available and most villages have Celcom and Unifi Mobile only. In some villages, Unifi Mobile's data connection is very limited and can only be accessed from big cities like Kota Kinabalu.

Apart from teaching/learning and career-related problems, the rural community also stated that they do not or rarely perform online transactions, unlike the usual method practiced by the urban community due to limited internet access. In addition, during the movement control order, communication among family members and relatives from different villages, districts or states is somewhat affected because the community cannot meet face to face or communicate online due to internet problems. Virtual communication has limited its frequency and usage due to unsatisfactory internet connection.

Factors Contributing to the Challenges or Obstacles of Virtual Communication

The qualitative data showed that there are many factors that contribute to the challenges and problems of virtual communication in the community such as physical, economic, personal, social and administrative factors. Hill landforms, covered by forests, the lack of telecommunication towers, remote villages and far from towns and Internet Centres, electricity supply problem as well as natural events such as rain and thunderstorms are among the physical problems. As for the economic aspect, the community is typically from the B40 group who make a living as fishermen, farmers and rubber tappers. They can't afford to own a gadget for each family members and subscribe to the internet plans. There are also students and villagers who have to share gadgets with the family members. On the other hand, personal factors such as personal aspects like knowledge, skills, perceptions and individual motivation influence the usage and subscription of the internet plans, especially among the elderly and housewives. There are also parents who do not allow their children to own a gadget because they are worried about the misuse of gadgets. From the social and administrative aspects, the lack of internet access as well as contributions or donations in the form of gadgets; lack of encouragement, information and awareness campaigns about internet usage as well as internet centre; the villagers' habit or common practice, in which they prefer to socialize and gather in certain places face to face; the unaffordable telco plans as well as the telecommunication companies' promotional packages or plans also have a significant impact on the challenges and problems of virtual communication among the rural community.

Based on the quantitative data obtained, there is a significant relationship between all these factors, namely personal, physical, social or administrative as well as economic and the problems or challenges of virtual communication. This result is drawn based on the 33 items in the questionnaire regarding all factors that contribute to the challenges or problems of virtual communication measured based on the Likert scale. The SPSS analysis shows that all these factors influence the problems or challenges related to virtual communication faced by the rural

community at their respective location. The general validity data pertaining to those factors which consists of 33 items as responded by 133 respondents is shown at table 2-5 below:

Table 2: The validity data for Economic factor

| KMO and Bartlett's Test | | | |
|--|----------------------------|------|------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | .878 |
| Bartlett's Sphericity | Test of Approx. Chi-Square | df | 21 |
| | | Sig. | .000 |

Table 3: The validity data for Physical factor

| KMO and Bartlett's Test | | | |
|--|----------------------------|------|------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | .594 |
| Bartlett's Sphericity | Test of Approx. Chi-Square | df | 28 |
| | | Sig. | .000 |

Table 4: The validity data for Social and Administrative factors

| KMO and Bartlett's Test | | | |
|--|----------------------------|------|------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | .665 |
| Bartlett's Sphericity | Test of Approx. Chi-Square | df | 45 |
| | | Sig. | .000 |

Table 5: The validity data for Personal factor

| KMO and Bartlett's Test | | | |
|--|--------------------|------|------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | .659 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | df | 28 |
| | | Sig. | .000 |

Mechanisms Practiced by the Rural Community in Sabah in Overcoming Virtual Communication Problems while Dealing with the Covid-19 Pandemic.

Based on the results of the qualitative and quantitative data, the mechanisms practiced by the students, employees and villagers to overcome internet problems before and during movement control order are as follows:

- i. Withdraw extra money to cover the needs of gadgets and internet subscriptions, especially during movement control order
- ii. Allocate the cost to develop modules for students who do not have gadgets and internet access
- iii. Collect and submit schoolwork to the teacher's house
- iv. Go up the hill to find internet coverage to complete schoolwork
- v. Stay at a friend's house, where internet connection is available
- vi. Borrow or share a phone/gadget with family members and friends to do things related to teaching and learning, career and so on
- vii. Visit nearby school compounds or locations that have internet access to attend online meetings or classes
- viii. Visit the Internet Centres located at the town area for matters involving computers and the internet
- ix. Reposition the modem to get the best internet coverage

Recommendations to Overcome the Challenges or Obstacles of Virtual Communication in the Northwest Coast of Sabah

Based on the challenges, factors, mechanisms practiced and suggestions given by the relevant parties, below are some recommendations drawn for the government and the relevant parties so that they can take appropriate measures to overcome the implications of virtual communication among rural communities, especially in the Northwest Coast zone of Sabah.

- i. Provide and upgrade basic needs such as tap water supply and electricity.
- ii. Build and increase the number of telecommunication substations or towers, especially in the affected villages.
- iii. Upgrade existing transmitters to 4G.
- iv. Increase the quantity of telco services that offer affordable packages for the underprivileged students and villagers.
- v. Equip and provide computer labs in schools with multimedia equipment such as computers, internet modems, LCD projectors and so on.
- vi. Add modems to boost the internet speed or signal, especially in schools that have internet access problems.
- vii. Provide free internet data to students from low-income families to enable them to attend online classes.
- viii. Provide free gadgets to students who really need it.
- ix. Establish a small-scale Internet Centre in each village or township, especially those with internet coverage problems due to physical factors.
- x. Add more computer equipment and ICT related gadgets in each Internet Centre.
- xi. Expand the site and space of the Internet Centres to accommodate the capacity of visitors and users, as well as to facilitate the implementation of Standard Operating Procedures (SOP) during pandemic.
- xii. Allow the Internet centres to operate during MCO by providing periodic schedules in areas that do not have internet coverage or villages where the communities are underprivileged by ensuring SOP are followed.

- xiii. Increase awareness campaigns and internet-related training courses in the rural areas and Internet centres.

Conclusion

Issues related to the implications and problems of virtual communication among rural communities are not something new. However, the global spread of Covid-19 pandemic has created a new norm regarding the need and dependency on virtual communication or online-related activities especially those involving teaching and learning, career-related matters, transactions and communication as well as daily routines. This paper, which focuses on issues related to challenges, contributing factors and mechanisms practiced by the villagers regarding the implications of virtual communication has proven that rural communities, especially in the Northwest Coast of Sabah indeed represent genuine cases related to internet or virtual communication problems, which sometimes often disputed by certain parties. It is hoped that this paper can be a communication platform or voice of the villagers in these locations. Hopefully, the parties involved can take advantage of the recommendations put forward in this paper in order to transform the status quo and prepare the communities to face the new cultural norms as a result of the covid-19 pandemic.

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Informants

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Ahmad Hisyamuddin, Resident of Kg Tajau Laut. Interviewed in October 1st 2020.

Amran Bin Mohd Zamzam, Senior Assistant at SM Tandek 2. Interviewed in September 29th 2020.

Asdi@ Mohd Faizal Bin Hussin, Assistant District Officer, Kudat. Interviewed in September 30th 2020.

Bobby Addy Nasry Bin Mustapah, Manager at Internet Centre, Tandek, Kota Marudu. Interviewed in September 29th 2020.

Mohd Iyad Asraii Bin Masri, Assistant Manager at Internet Centre, Tandek, Kota Marudu. Interviewed in September 29th 2020.

Maslianah Binti Sh. Majid, ICT co-ordinator & teacher at SMK Tandek 2. Interviewed in September 29th 2020.

Jair Bin Mattahir, Village Head of Kg Tajau Laut. Interviewed in October 1st 2020.

Johny, Assistant Manager at Internet Centre, Kudat. Interviewed in September 30th 2020.

Rosmaineh Janueh, Assistant Officer (Information Technology) at Rural Internet Centre, Kota Marudu. Interviewed in September 29th 2020.

Tinah Maratin, Assistant Administrative Officer, District Office, Kota Marudu. Interviewed in September 29th 2020.

Tony S. Mondorusun, Manager at Internet Centre, Kudat. Interviewed in September 30th 2020.

Veveonah Mosibin, Resident of Kg Santalang, Pitas and Student of Universiti Malaysia Sabah. Interviewed in Oktober 23rd 2020.