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# IMPACT OF SOCIAL MEDIA IN COMBATING THE COVID-19 PANDEMIC: LESSONS AND PROSPECTS

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**ABSTRACT**: The COVID19 pandemic has caused negative impacts in both the economy of nations and in the wellbeing of people. As deaths and incidences from the pandemic continue to rise, we note the important role that social media can play in helping to disseminate vital information needed by global citizens to help curb the erratic pandemic. However, there are still grappling challenges in getting absolute compliance from individuals with respect to COVID19 health information and safety instructions from relevant authorities. Using a descriptive survey, we investigate the perception of individuals in adhering to local news media directives on COVID19 control. Our sample consist of 198 foreign nationals who had been working in China around the time that the pandemic started. Results show that participants agree that news from their local media has been authentic and has significantly helped to reduce the impact of the pandemic in their various current places of residence. We recommend that local media agencies should be encouraged to consistently update the masses in their various countries on updates about health guidelines and instructions in controlling the pandemic. Also, authentic sources should be consistently referenced as a doubt about the authenticity of news can greatly cause panic and doubt among people with consequent devastating effects if people believe that such news are no longer authentic.

KEYWORDS: Covid19, Social Media, Perception, Pandemic, News

# **INTRODUCTION**

The COVID-19 pandemic has emerged to be one of the most lethal health issues experienced on earth (Ali, 2020). The pandemic has claimed one million, thirty-five thousand, three hundred and forty-one (1 035 341) lives with thirty-five million, one hundred and nine thousand, three hundred and seventeen (35 109 317) confirmed cases globally as at 5<sup>th</sup> October, 2020 (World Health Organization [WHO], 2020) since its outbreak in mid-December 2019. This global devastating pandemic has ranked only behind the Bubonic plague (a.k.a. the Black death) which claimed about fifty (50) million lives in the 14<sup>th</sup> century and the Spanish Influenza (H1N1 influenza) which claimed another fifty (50) million lives between 1917 – 1918 (Klokol et al, 2020). Despite measures and counter measures employed by various government agencies, the spread of the Virus saw a tremendous rapid drive spreading from Asia to Europe and America. However, as recently as late April to October 2020 (as at the time of writing), it has been noticed of significant decrease in the number of new recorded cases in China and Wuhan - the first epicenter of the pandemic and the city believed by many to have been where the epidemic started. Also, in other cities in China, number of new or hospitalized cases as a result of the virus had significantly reduced and has kept reducing.

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It is suspected that one vital reason for this significant achievement in curtailing spread of the Virus in China had been robust and strategic social media awareness and news feed to individuals on how to take precaution, and stay safe and healthy, and prevent further spread of the virus together with other stringent public health measures. For example, in Nigeria, Oluwayiwa, et al., (2020) reported that about 98.8% of respondents in their study believed that the COVID19 is real and had relied on social media for their information. This may be connected with the low level of confirmed cases and deaths recorded in Nigeria as compared to other countries given the population of Nigeria as the most populous African nation. In this study, we investigate the impact of media awareness in helping governments and local authorities significantly reduce the spread of the COVID-19 pandemic and in efforts to bring the virus spread to an end.

# COVID19 Vs SARS-CoV

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) renamed COVID2019 on 11 February 2020 (World Health Organization [WHO], 2020) has caused significant havoc on; economic development, education, growth in productivity and social life of people globally. The highly contagious infection which first broke out in the Wuhan City of Hubei province in China has claimed a significant over one million lives with over thirty-five million confirmed cases ([WHO] COVID19 Situation report- 5 Oct., 2020). This is despite frequent sustained efforts on prevention tips and control measures regularly updated and published by recognized world health agencies. Defying early efforts and intervention from local authorities in Wuhan City to contain the outbreak culminating to total lockdown of Hubei province by the Chinese government on 23<sup>rd</sup> January 2020, the outbreak rapidly spread to other parts of the world prompting the WHO to declare the outbreak a Public Health Emergency of International Concern (Zheng, Ma, Zhang & Xie, 2020) and consequently a global pandemic on 11 March 2020 (WHO, 2020).

The COVID19 pandemic when compared with the SARS-CoV that caused an outbreak of SARS in 2003 has a stronger transmission capacity which exacerbated its rapid increase in confirmed cases and made its prevention and control extremely difficult (Zheng, Ma, Zhang & Xie, 2020). Comparatively, Both SARS and COVID-19 relatively affect older adults more than they do younger individuals. About half of individuals over 65years who contracted SARS died, compared with just 1% of people under 24years (Tim, 2020). This statistic has proved similar for COVID19 with early reports confirming higher fatality rates for the elderly people and people with heart related diseases (Tim, 2020, 2020). Both SARS-CoV and the virus that causes COVID-19 can transmit via droplets from coughs and sneezes (WHO, 2020). Globally, SARS infected an estimated 8,000 people in 29 countries and had a mortality rate of around 10%. Although this stood at a lower figure when compared to COVID19; 6.86% mortality rate (as at 23<sup>rd</sup> April 2020 [WHO]), the number of persons affected across the world stood significantly far apart.

With the forgoing on the impact of the pandemic compared to the SARS-CoV, conflicting reports have it that some people believe that the number of casualties would have been significantly higher without the daily update from social media (Zoe, 2020) such as the WHO and other authentic local media outlets. Another school of thought believe that social media had instead exacerbated the impact of the pandemic through either misleading, unconfirmed or

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scientifically wrong reports. This position becomes more of a concern taken into cognizance, the dangers that misinformation can cause in the society as contained in the report of Helen (2020) when summarizing reports of the Reboots study carried out in the USA; "The Reboot study shows that there remains a lot of misinformation about Covid-19 circulating online, and social media continues to promote coronavirus myths. This is dangerous for individuals and society...". Another group of people yet believe that frequent and alarming updates coming from social media has instead raised the levels of anxiety and fear among people (Logan, 2020).

It's common knowledge that correct information on situations and good precautionary measures from authentic authorities are essential for effective fight of pandemics like the COVID19, however, misleading information can as well do as much harm as good information. For instance, according to Helen (2020), "The Reboot study shows that there remains a lot of misinformation about Covid-19 circulating online, and social media continues to promote coronavirus myths. This is dangerous for individuals and society...". This situation presents much more concern for public safety when taken into consideration the Helen (2020) research team report, after their study on social media posts related to the coronavirus in the month of March in the United states. The report has it that "there were commonly more than 1,000 tweets per minute about the virus on Twitter. Those tweets often contained blatantly inaccurate information and were prevalent in cities where the virus is wreaking havoc: New York City, Los Angeles, Chicago, Miami, Seattle and Detroit." (Helen, 2020).

These notwithstanding, the WHO (2020) reports have consistently maintained that heeding precautionary measures from authentic sources remains key to effectively reducing the impacts and spread of the pandemic. Achieving this feat depends much on whether individuals believe in authenticity of news available to them and how much they believe that the news contributes in ending the pandemic. This article seeks to investigate via survey, the perception of foreign experts in Shanghai on the impact of social media on COVID19 pandemic. If the opinions of individuals are known on the impact of social media in containing covid19 pandemic, this will provide local and state authorities some insights into people's perception on the COVID19 pandemic and will provide data for brainstorming on possible ways that information from media can be more effectively used to contain spread of the pandemic.

# **Social Media**

Among early reports from studies on the impact of social media influence in the society during a pandemic can be traced to the 2009 H1N1 pandemic, in which some reports of misinformation were reported like; change in terminology ("H1N1" against "swine flu"), authenticity of case incidences vs public concerns and public sentiments and fear (Chew C, Eysenbach G., 2010). Social media can be defined as online mediums and applications that enable users to create and share content or to participate in social networking. According to Dollarhide (2019), social media can be defined as computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. Social media on the other hand mean all media which an individual frequent and relatively depend on for information about what is happening in his/her immediate society.

For centuries, human society has used communication to live peacefully and relate with one another. Many Communities used different methods to disseminate information in historic and pre historic periods. However, with the Advent of world wide web, human communication and connectivity has sky-rocketed in a geometric progression (Bakshy, Rosenn, Marlow, &

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Adamic, 2012). Not only has connectivity and communication increased with the advent of the internet, the speed in spread of information to masses has also seen considerable leap (Bakshy, Rosenn, Marlow, & Adamic, 2012).

Today, the social media industry has seen innovations with many social media handles, used by individuals, groups and various governments and governmental agencies to pass information across to their friends, relatives, members and citizens. Also, there has been an upsurge in the emergence of many news media companies disseminating news and information to the public. Some of the news agencies are owned by governments through which they pass on important information to their citizens. Some are private news media also disseminating information to the public. Examples of prominent social media platforms in operation globally include Twitter, Facebook, LinkedIn, Wechat, Weibo, Instagram, Tiktok and Youtube. Some popular news media include CNN, FOX, CCTV, and BBC to mention but a few.

Several news media have published information about COVID-19. But unfortunately, these many different news media have given different instructions and interpretations about ways to prevent the spread of the virus, such as keeping on practicing social distance, using masks, and washing of hands (Hernández-García, & Giménez-Júlvez, 2020). Having noted earlier that divergent information on safety and pre-caution during pandemic can cause significant problems if not checked in the society, we seek to investigate what is the opinions and perception of foreign experts in China on the impact of social media on covid19 pandemic.

### **METHODOLOGY**

Our objective is to find out people's perception on the impact of social media in combating the covid19 pandemic. Using a questionnaire instrument in a simple survey, we collected and analyzed data gotten from respondents.

# **Participants**

Participants in the study comprises of foreigners working and/or residing in China. This sampling frame was chosen for the study because, it is believed that the pandemic started in China and so, news and information about prevention control of the pandemic (as at the time of data collection) will be relatively high. More persons in this sample frame are expected to be more concerned about the pandemic and thus will effectively respond to the survey.

### **Data Collection**

The survey instrument developed with which to generate data was send to various online groups in which the participants are members. Some of the online groups used were WeChat and WhatsApp groups. Survey monkey software was used to develop the survey items into an online form and the link generated was sent to the groups for participants to fill. Participants randomly filled the survey form developed using the link created and 198 participants successfully returned their responses on the survey which was used for further analysis.



# **Data Analysis**

Data collected were analyzed using simple means, frequencies and standard deviations. The survey instrument contains items measured on a 5-point scale from strongly agree (5points), Agree (4 points), Neither Agree nor disagree (3points), Disagree (2points) and Strongly Disagree (1point). To take decisions, a criterion mean score of 3.0 is adopted which is the mean point (average score response) of the respondents in the instrument scale. Therefore, items with scores which are above or equal to 3.0 were considered to have been AGREED to by the respondents while items with scores less than 3.0 were considered DISAGREED to by the respondents. A simple face validity measure was employed in designing the instrument by giving the drafted instrument to a psychologist and psychometrician to comment on the suitability, appropriateness and authenticity of the instrument in measuring the objective of the survey. The inputs of the experts were heeded to in drafting the final instrument which was used to gather data. All negatively skewed items were scored on inverse scale to ensure objective total item score perception of the respondents.

#### **RESULTS**

From results gotten from analysis, Sixty percent (60%, n=198) of the respondents were currently resident in China as at the time of responding to the instrument while forty percent (40%; n=198) of the respondents had traveled out of China as at the time of responding to the instrument. 95% (n=198) of the sample respondents are between the ages of 20-50year and all respondents indicated that they have never tested positive to COVID19 as at the time of responding to the survey.

Responses were first analyzed for the overall score perception of respondents on whether they believe that social media has helped to curtail the impact of the pandemic in various countries. Results show that the overall average score responses from respondents is eighty percent (80%; mean = 0.8; SD = 0.15; n=198).

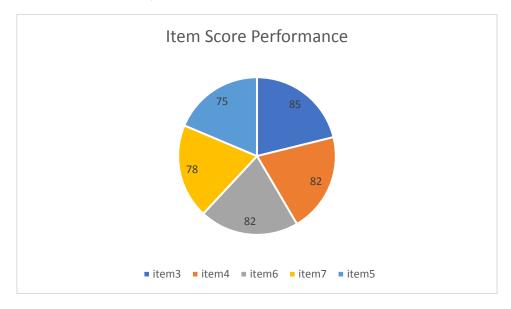


Fig. 1. Graphical Representation of Responses (Aggregate)

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Result from the graph in Fig. 1. above shows that respondents in general agree that news from social media has positively helped in controlling the covid19 pandemic. To buttress further, some of the respondents in the free response section of the survey believe that news from social media has helped them in learning of essential information about the pandemic and how to observe safety measures. For instance, given below, is an excerpt from an anonymous respondent who believed that social media has helped in containing the pandemic:

"The social news has aided in reducing the spread of the pandemic. Many who took this to be a joke got to know the severity of the pandemic by the social news. The news has helped to educate and inform the public of occurrences in other part of the world and constantly reminded the general public of their duty to stay safe"

Other participants specifically pointed out that the social media was essential in helping them learn of vital practices like social distancing, hand washing, avoiding non essential travels and in keeping up to date with what happens in other countries. These they believe was essential in keeping them safe during the pandemic. We also present results from items:

**Table 1: Item Ranking** 

Ttom	Quartiens	Moon	CD	Dogicion
<u>Item</u>	Questions	Mean	SD	Decision
5	Do you agree that local news was authentic in	3.535	0.240	AGREED
	publishing news about COVID-19 during the			
	pandemic?			
7	Do you agree that without the updates from local	3.898	0.266	AGREED
	news, the number of deaths recorded from the			
	pandemic would be higher?			
6	Do you agree that without the Local news updates	3.994	0.274	AGREED
	about the COVID-19, the spread of the pandemic			
	would have been worse?			
4	Do you agree that the local news in your city	4.045	0.279	AGREED
	helped you stay healthy and safe during the			
	pandemic?			
3	Do you agree that social media helped to reduce	4.25	0.299	AGREED
	the spread of COVID-19 pandemic in your city?			

From the results presented in the table above, it is evident that foreigners' resident in China believe that social media played a major role in influencing the impact of covid19 pandemic and how it was controlled. Evident from the table in the results presented above, the sample respondents agreed that on all the items which south to elicit their opinion on whether social media had helped to curtail the covid19 pandemic. The mean scores of all the items falling in between 3.535 - 4.25 shows high agreement into each specific question posed by each item.



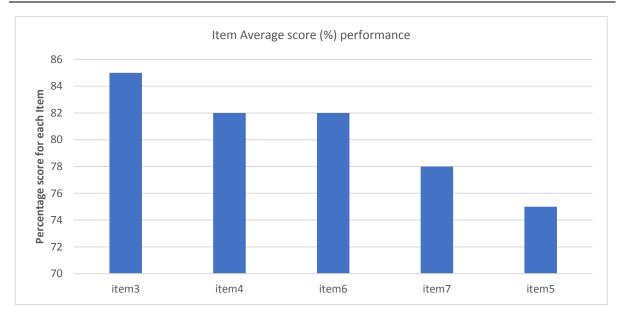


Fig. 2: Average scores for the items on impact of social media on COVID19

Item by Item Analysis

Table 2: (Item 3) Do you agree that social media helped to reduce the spread of COVID-19 pandemic in your city?

Item statistics: N: 198. Criterion Mean: 3.00				STD	Decision
Scale	Response (%)	f	X	SD	
Strongly Agree	50	99	4.25	0.299	AGREED
Agree	30	59	_		
Neither Agree nor Disagree	15	30	_		
Disagree	5	10	_		
Strongly disagree	0	0	_		
Total	100	198	_		

In item three (3) as shown in the table 2 above, participants agree that social media helped to reduce the spread of COVID-19 pandemic in their city. It was noted that some of the participants had travelled out of China as at the time of the survey but the survey responses from such respondents were still useful as they were required to report on their opinion on how news from social impacted efforts to curtail the pandemic in their various countries. Also, we note that the pandemic gradually spread to other parts of the world and so many of the respondents already had cases of confirmed infected patients as at the time of responding to the survey.



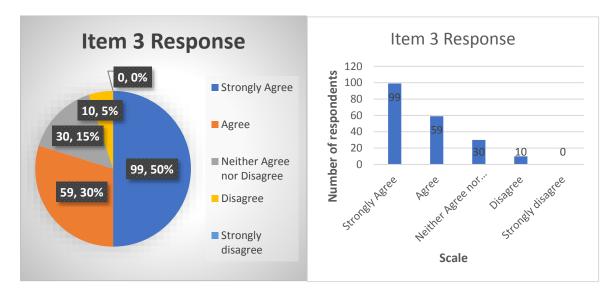


Fig. 3: Graphical Representation of Responses on Item 3

Table 3: (Item 4) Do you agree that the local news in your city helped you stay healthy and safe during the pandemic?

Item Statistics: N:198.	Criterion Mean: 3.00	Mean	STD	Decision	
Scale	Response (%)	f	4.045	0.279	AGREED
Strongly Agree	42.424	84			
Agree	32.323	64			
Neither Agree nor Disagree	15.152	30	_		
Disagree	7.576	15	_		
Strongly disagree	2.525	5	_		
Total	100	198	_		

Results from the respondents on item four (4) shows that the participants agreed that local news in their city helped them to stay healthy and safe during the pandemic. Comparatively to item three, it was observed that a few of the respondents strongly disagree that local news from social media helped them to stay healthy and safe during the pandemic. This observation may be connected to the varying protocol prescribed in various countries especially during the early stages of the first wave of pandemic between February and May 2020. For instance, residents were strictly instructed to avoid going outside their homes except on special needs and that they must put on masks if they are to outside. However, in other countries especially in the United states, such strict measures were not encouraged. The effect of the differences in these measures were neither measured nor known in this study but the divergencies impacted how individuals perceive the relative impact of news from local media in helping them stay healthy during the pandemic.



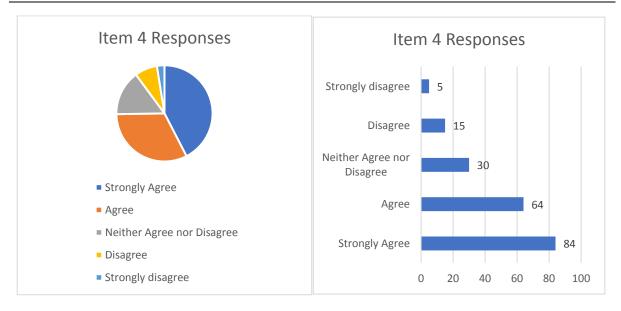


Fig. 4: Graphical Representation of Responses on Item 4

Table 4: (Item 6) Do you agree that without the social news updates about the COVID-19, the spread of the pandemic would have been worse?

Item statistics: N=198; Criterion Mean = 3.00						
Scale	Response (%)	f	Mean	SD	Decision	
Strongly Agree	39.899	79	3.994	0.274	AGREED	
Agree	32.323	64				
Neither Agree nor Disagree	17.677	35				
Disagree	7.576	15				
Strongly disagree	2.525	5				
Total	100.00	198				

Response from item 6 shows that respondents also agreed that the spread of the pandemic would have been worse if there were no social news updates about COVID-19 in their cities. This response did not resonate with all the respondents as some of the respondents believed otherwise as shown in table four (4) above.



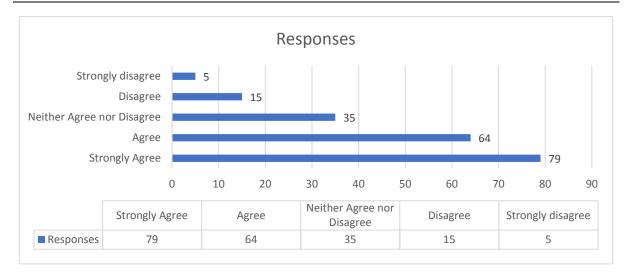


Fig. 5: Graphical Representation of Responses on Item 6

Table 5: (Item 7) Do you agree that without the updates from social news, the number of deaths recorded from the pandemic would be higher?

Item statistics: N=198; Criterion Mean = 3.00						
Scale	Response (%)	f	Mean	SD	Decision	
Strongly Agree	37.374	74	3.898	0.266	AGREED	
Agree	25.253	50				
Neither Agree nor Disagree	29.798	59				
Disagree	5.050	10				
Strongly disagree	2.525	5	_			
Total	100	198				

Results from the survey on item seven (7) with a mean score of 3.898 which is above the criterion mean reference shows that participants agreed that without the updates from social news, the number of deaths recorded from the pandemic would be higher. This item consolidates the response from item six (6) which focuses on the spread of the pandemic.



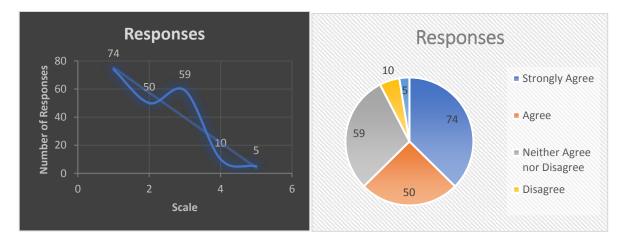


Fig. 6: Graphical Representation of responses from Item 7

Table 6: (Item 5) Do you agree that social news was authentic in publishing news about COVID-19 during the pandemic?

Item statistics: Average score: 0.82; Standard deviation: 0.96; N=198						
Scale option	Response (%)	f	Mean	SD	Decision	
Strongly Agree	15.151	30	3.535	0.240	AGREED	
Agree	44.949	89				
Neither Agree nor Disagree	25.253	50				
Disagree	7.576	15				
Strongly disagree	7.071	14				
Total	100					

Responses from respondents on item 5 as observed in the study shows relatively marginal agreement on the authenticity of the news about COVID19 during the pandemic. Surprisingly, about fourteen respondents strongly disagree that the news published by local media are authentic about the COVID19.

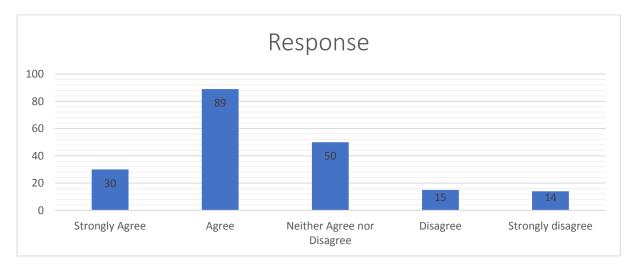


Fig. 7: Graphical Representation of responses from Item 5

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Generally, on specific Item responses, we observe that respondents strongly agree that social media helped to reduce the spread of COVID-19 pandemic in their city. This is evidenced in the responses of the item by item analysis presented in Table 1 with Item three scoring highest on the five-point scale. Other items with higher scores on whether social media has helped in fighting the pandemic include Items four, six, seven and five.

It is noteworthy that even though the items have a relatively higher mean score showing greater agreement that social media has helped in fighting the pandemic, some respondents although few felt otherwise. Some of the respondents who felt that social media has not helped in curtailing the pandemic cited mistrust in the quality of content reported by the social media while other say that the social media is being used as a tool to politicize and gain selfish interest by politicians using covid19 as a good excuse.

In Items three, four, six and seven, the participants average response score was quite high with many respondents strongly agreeing to the item that social media has helped in containing the pandemic and helping them to stay safe. However, in Item 5, the respondents' response sharply concentrates on agree with significant number choosing to remain indifferent on whether contents disseminated through the social media had all been authentic. This statistic underscores the veracity of a hypothesis that many people believe that not all the information disseminated about the covid19 is true.

#### DISCUSSION

From the results, it was observed that many respondents believe that the social media has helped countries and communities in containing the covid19 pandemic by providing vital information for safety and to stay healthy. This result supports the report of (Oluwayiwa, et al., 2020) who found that motorists in Nigeria believe that the COVID19 pandemic is real and had relied on social media for information on the pandemic. This also, provides source of encouragement for important global health agencies like the WHO who had worked tireless in providing up-to-date information on how people can stay safe amid the impact of the covid19. We note that there could be some mistrust issues arising from lack of adequate information especially at the onset of the pandemic with regards to what exactly started the pandemic and the spread as well as with efforts made by various countries, these suspicion in most cases remain yet to be resolved. One fact that the findings of the survey has revealed is a general belief that the efforts of various social media was important in helping individuals to take vital precaution and stay away from activities that could have exacerbated the the aggregate impact of the pandemic. This suggest that individuals should pay more attention to the social media as the pandemic still ravage some parts of the world.

News from social media should be taken more seriously in countries and communities where there is mistrust on the authenticity of the news content broadcast by the social media channels in those communities. This will help to curtail the spread of the pandemic and possibly avert any new wave of the pandemic re-occurring.

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#### **IMPLICATIONS**

The findings from this study provides managers in local authorities with some encouraging outcomes on how the efforts from local media has been very useful in combating COVID19 pandemic. For example, findings from the study will encourage states to intensify their efforts in disseminating authentic information as that has been found to be instrumental in combating the pandemic. Also, the study will benefit researchers who may wish to expand on the different kinds and sources of the media that makes most significant contribution in giving updates about the COVID19 pandemic and informing residents on health safety tips.

# **CONCLUSION**

The study set out to investigate the impact of social media in fighting the COVID19 pandemic in various countries. Findings from the study has demonstrated that social media has contributed positively in helping various nations to curtail the impact of the pandemic. Also, the study show that individuals believe that the effect of the pandemic would have been worse less the consistent updates that is been published from by some authorized health international organization. As we brace up amidst uncertainty about a possible second wave of spread prone to coming winter season, we recommend that effort should be increased in ensuring consistent and periodic updates on safety tips and information about the pandemic.

# **Future Research**

We recommend future research in investigating for specific kinds and mediums of social media that contributes most in keeping individuals up-to-date and providing safety tips on how to stay safe during the pandemic so that such medium will be encouraged for maximum benefit on use of social media in curtailing impacts of the pandemic on people.

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