

A Survey of the Socio-Economic impact of Physical Distancing in Combating COVID 19 in Nigeria

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ABSTRACT: Globally, the world is experiencing a very strange time battling an invisible enemy; the novel COVID-19 coronavirus, initially started in the Wuhan province of China, now vastly spread across the world. During its onset, no one could have thought the virus would end up being a worldwide disaster. Thus the study was set up to examine the socio-economic impact of physical distancing approach in combating COVID 19 in Nigeria. Specifically the objectives were to ascertain the awareness or existence of COVID 19, identify the socio-economic difficulties faced by the people, measures applied to cushion the effects in Nigeria. Theoretically the study adopted the ecological health model as the theoretical orientation of the study. A cross sectional survey research design was used in the study. A Questionnaire survey instrument of data collection, developed from Google form was sent via emails and social media handles to generate the data, responses collected from the questionnaire were processed and analyzed. Findings of the study indicate that majority of the people are aware of the existence the novel virus as well understand its various process of spreading. Also, findings of the study showed that respondents experience 26% to 50% drop in income/revenues, purchasing power and workforce/labour, they also face difficulties in movement of goods and services, usual daily supplies/needs, cash flows, late payment of salaries/wages and outright sacked from work. Therefore, the study recommends that government provide advice for business continuity, diversification/alternatives and provision of financial aids to cushion the effect the Covid19 lockdown.

KEY WORDS: COVID 19, Corona Virus, Physical Distancing, Socio-Economic impacts & Nigeria

I. INTRODUCTION

Globally, the world is observing a very strange time battling an invisible enemy; the novel COVID-19 coronavirus, initially started in the Wuhan province of China, now vastly spread across the world. During its onset, no one could have thought the novel virus would end up being a worldwide disaster, many people thought it was just another fever, even as it advanced and became life-threatening, people were shocked. But, even with the first reported deaths, there was still no cause for concern.

However, with the rapidly escalating COVID-19 pandemic, governments across world have been urged by World Health Organization to regard control of the disease as a 'top priority' given its devastating impact. On the other hand implementing sustainable preventive interventions without vaccines has confronted significant difficulties towards the novel virus. According to Hatchett, Mecherand Lipsitch, (2007) when a novel viral strain is encountered for which vaccines are not available, non-pharmaceutical interventions and antivirals are the only viable way to support early mitigation efforts, and indeed existing research has shown their effectiveness in delaying and containing influenza pandemics. Thus it was not surprising that many countries of the world adopted the physical distancing method in other to curtail the virus from spreading.

The physical distancing approach is focused on reducing physical contact as a means of interrupting transmission, but while reduction of physical contact may be an outcome of that, it is not a specific aim. Indeed, the success of physical distancing measures that are implemented over an extended period may depend on ensuring that people maintain social contact from a distance with friends, family and colleagues (Centers for Disease Control and Prevention, 2019). Therefore internet-based communications are key tools for ensuring a successful physical distancing strategy.

Additionally since the 2009 influenza pandemic, useful evidence has been generated from clinical and epidemiological studies, mathematical modeling and personal clinical experience about the potential impacts of physical distancing and other related measures. However, the overall quality of the evidence is not strong.

Overall, physical distancing measures were found to be moderately effective in curtailing influenza pandemic. Also the experiences with COVID-19 in China indicates that the early, decisive, rapid, coordinated and comprehensive implementation of physical distancing measures are likely to be more effective in slowing the spread of the virus than delayed actions. It is estimated that if a range of non-pharmaceutical interventions, including physical distancing, had been conducted one week, two weeks, or three weeks earlier in China, the number of COVID-19 cases could have been reduced by 66%, 86%, and 95%, respectively, while also significantly reducing the number of affected areas (Lai, Ruktanonchai, Zhou, Prosper, Luo, and Floyd, 2020).

However the approach of physical distancing has also come with its enormous socio-economic impact particularly in third world countries such as Nigeria that already had a weak and underdeveloped digital economy. It is also pertinent to note that Nigeria's prevailing situation is a case of an infectious pandemic overriding existing recurring and on going epidemics, especially of cholera, Lassa fever and yellow fever; these jointly kill thousands of people yearly. This is of course outside malaria related deaths. Malaria fever is an endemic disease that kills tens of thousands of Nigerians (especially children) yearly. Nigeria accounts for up to 25 percent of the global cases of malaria and up to 110,000 deaths yearly especially among children under five (World Health Organization, 2015).

Thus it was against this background that we are motivated to search in more directions for empirical evidence that could help to explain the direct socio-economic impact of physical distancing approach in this covid19 pandemic from the individual perspectives in Nigeria.

Research Questions

The following research questions guided this study:

1. What is the awareness or existence level of COVID 19 among the populace in Nigeria?
2. What are the impacts of Covid-19/ physical distancing approach to work/business among the populace in Nigeria?
3. What are the socio-economic difficulties faced by the people as a result of the physical distancing approach by the government?

Conceptual Issues

Concept of Physical Distancing

Physical distancing, also known as social distancing is a series of non-pharmaceutical strategies or steps intended to avoid the spread of infectious diseases by maintaining a physical distance between people and minimizing the number of times people come into close contact with each other, (Hensley, 2020). It typically includes keeping a certain distance from each other (the distance between people and others), such as six feet or more) from other people or staying away from direct contact with individuals or items out in the open spots during the outbreak of an infectious disease in order to minimize exposure and decrease the transmission of disease.

According to the Centers for Disease Control and Prevention (CDC) social distancing are set of methods for reducing frequency and closeness of contact between people in order to decrease the risk of transmission of disease. During the 2009 flu pandemic the World Health Organization described social distancing as keeping at least an arm's length distance from others, and minimizing gatherings. It is joined with acceptable respiratory hygiene and hand washing, and is viewed the most possible approach to decrease or delay a pandemic.

However during the COVID-19 pandemic, the World Health Organization (WHO) proposed preferring the word "physical distancing" rather than "social distancing" because it is a physical separation that prevents transmission; people can remain socially associated through technology to slow down the spread of infectious diseases and avoid overburdening healthcare systems, particularly during a pandemic, several social-distancing measures are used, including the closing of schools and workplaces, isolation, quarantine, restricting the movement of people and the cancellation of mass gatherings

The Covid-19 pandemic

The coronavirus began in Wuhan, Hubei Province, China. People who lived in Wuhan had some link to a large seafood and live animal market, which suggest that the mode of transmission of coronavirus was from animal to person. The virus has been named "SARS-CoV-2" and the disease it causes has been named "coronavirus disease 2019" (abbreviated "Covid-19"). The first known patient of Coronavirus started experiencing symptoms in Wuhan, China on 1 December 2019 (World Health Organization, 2020). In Nigeria, the novel virus entered through an infected Italian citizen who came in contact with a Nigerian citizen who was subsequently infected with the coronavirus. The coronavirus then spread to other citizens in Lagos and to other parts of the country.

Review of Related Literature

In a related research, Meghendra, Prasenjit, Gloria, Achla, Kevin, Pamela Murray, Kaja & Samarth, (2019) carry out a study on the impact of demographic differences in social distance and vaccination on influenza epidemics in urban and rural areas of the United States. The methodology involves a sample of U.S.

adults to collect data on their self-protective behaviors, including social distance and vaccination to protect them from influenza infection, and the data collected was incorporated into an agent-based model to simulate the transmission dynamics of influenza in the urban Miami Dade County in Florida and the rural Montgomery County in Virginia.

After comparing epidemic scenarios in which social distancing and immunization practices are standardized versus non-uniform across different demographic subpopulations, the study found that consistent enforcement of social distancing and vaccine uptake among different demographic subpopulations underestimates the severity of the epidemic compared to differentiated compliance between different populations. This finding extends to both urban and rural areas.

Meghendra, et al, (2019) concluded that, taking into account the behavioral variations in social distance and vaccination of different demographic subpopulations in the study of influenza epidemics, we have better estimates of outbreak outcomes that could help enhance public health interventions to prevent and monitor influenza.

In another related research, Hager, Odetokun, Bolarinwa, Zainab, Okechukwu, & Al-Mustapha (2020) assessed the awareness, attitudes and expectations of Egyptians and Nigerians about the COVID-19 pandemic. The research was planned as a cross-section, community-based questionnaire survey in both countries. Demography, information, attitudes and opinions of the participants regarding the outbreak of COVID-19 were collected using a convenience sampling technique. The data obtained was subjected to descriptive statistics and logistic regression analysis. A total of 1,437 respondents were included in the preliminary report. The study indicates that the majority of respondents (61.6%) had a satisfactory knowledge of the disease. Age (18–39 years), the attitude of the majority of respondents (68.9%) towards preventive measures taken was adequate with an average attitude score of 6.9 ± 1.2 . According to Hager, et al (2020) education (College/Bachelors) and the backgrounds of the respondents were factors that affected the level of awareness.

Further results indicate that the majority of respondents practiced self-isolation and social distancing, but just 36% obey all health guidelines. The outlook of the majority of respondents (62.1 per cent) on global efforts to contain the virus and avoid further dissemination was satisfactory with an average score of 10.9 ± 2.7 . Just 22% of the respondents were pleased with their country's handling of the pandemic.

Hager, et al, (2020) recommended that, in order for the population to adopt traditional infection prevention and control measures properly, governments need to develop citizens' confidence by enhancing health services and improving surveillance efforts in case detection.

Theoretical Orientation

The study was anchored on the social ecological health model because of the important point highlighted in its assumptions for guiding comprehensive population-wide approaches to changing behaviors that will reduce serious and prevalent public health problems. The ecological approach focuses on both population-level and individual-level determinants of health and interventions. It considers issues that are community-based and not just individually focused (McLeroy, Bibeau, Steckler & Glanz, 1988,).

Thus the social ecological model helps to understand behavioral factors and also provides guidance for the development of successful programs through social environments. Multiple levels of influence (such as individual, interpersonal, organizational, community and public policy) and the concept that behaviors shape and are shaped by the social environment are emphasized by social ecological models.

Given the growing epidemic of COVID 19 virus across the world, countries and nations are attentions are being focused toward examining and improving the health-promoting features of communities and neighborhoods and reducing the ubiquity of physical contacts, health literacy, and increase in consumptions of immune boosters etc. as preventive measures.

II. METHODOLOGY

The descriptive survey research design was adopted for this study. As the name suggest, the research describes and interprets the actual phenomena under study, the study therefore assesses the socio-economic impact of COVID 19 in Nigeria. A list-based sampling frame methodology to enable the researcher to generate email contacts and social media handles of respondents, such as WhatsApp, Facebook and twitter thereafter a questionnaire survey instrument of data collection, developed from Google form was sent to their emails and social media handles. This sample frame obtain from the research contacts was over 1500 however because issues associated with online survey it was observed that only 145 respondents successfully filled and submitted back the survey, this figure was used for the bases of analysis data obtained from the field.

Findings/Results

Table 1: Demographic Characteristics of Respondents

Sex	Frequency	Percentage
Male	88	60.7
Female	57	39.3
Total	145	100
Age		
10-19	3	2.1
20-29	40	27.6
30-39	57	39.3
40-49	29	20
50-59	11	7.6
60-69	5	3.4
Total	145	100
Marital Status		
Married	87	60
Single	44	30.3
Divorce	12	8.3
Celibate	2	1.4
Total	145	100
Educational Qualification		
Bachelor Degree	89	61.4
Post-Graduate Degree	42	29
SSCE	7	4.8
Other	7	4.8
Total	145	100
Occupation		
Civil Servant	75	51.7
Self Employed	13	9
Business	17	11.7
Student	32	22.1
Unemployed	8	5.5
Total	145	100
Residence		
Permanent Residency	112	77.2
Temporary Residency	33	22.8
Total	145	100

Source: Field Survey, 2020

Table 1 shows that more than half (60.7%) of the respondents were males; while 39.3% represented the females. The Table also indicate also indicate that majority of the respondents in the study were 59 years old or younger. Only few (3.4%) were 60 to 69 years.

In addition, more than half (60%) of the respondents were married. 30% claimed that they are single, 8.3% divorced and 1.4% practicing celibacy, they could priests or Sisters from Roman Catholic. The table also shows the level of education acquired by the respondents. It reveals that all the respondents have gone to formal school, with more than half (61%) as tertiary graduate. This implies that all the respondents are literate hence can read and write.

On the occupation of the respondents the table shows that half (51.7%) of the respondents were Civil servants while 22.1% were students. In addition 11% and 9% represented business and self-employed individual respectively, while only 5.5% claimed they were unemployed.

Finally, the Table indicated that a high percentage of the respondents were in their permanent location. On other hand a very significant majority (22%) were held in temporary residence as results of the lockdown and physical distancing approach.

Analysis of Research Questions

Research question 1: What is the awareness or existence level of COVID 19 among the populace in Nigeria?

Table 2: Response on the Awareness of Covid-19

Option	Frequency	Percentage
Yes	139	95.9
No	4	2.8
Maybe	2	1.3
Total	145	100

Source: Field Survey 2020

Table 2 shows that a high percentage (95.9%) of the respondents is very much aware of the existence of the novel virus. 2.8% said no while 1.3 were skeptical. These are probably the section of the public that belief COVID 19 is not real in the country.

In other to appreciate the awareness level, respondents who attested to the existence of the novel virus also identified possible way to prevent the virus and they are presented in Table 8 below:

Table 3: Response on the Best Possible Way to Prevent Oneself from Covid-19

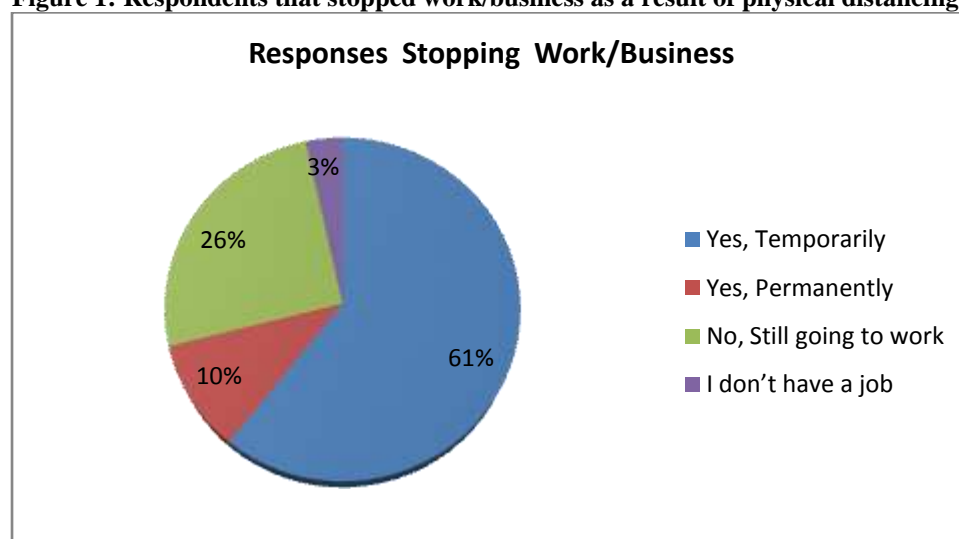
Option	Frequency	Percentage
Physical Distancing	86	59.3
Wear of Face Mask	32	22.1
Washing/Sanitizing of Hand	20	13.8
Clean Environment	7	4.8
Total	145	100

Source: Field Survey 2020

Table 8 shows best possible way to prevent COVID 19 among the respondents, 59.3% said physical distancing, 22.1% wearing of face mask, 13.8% washing/sanitizing of hand and 4.8% suggested clean environment. However more than half (59.3%) said physical distancing obviously because that it is the common preventive measure announced by government and relevant stakeholders. In addition it remains the most potent non-pharmaceutical interventions to avoid the spread of infectious diseases (Hensley, 2020).

Research question 2: What are the impacts of Covid-19/ physical distancing approach to work/business among the populace in Nigeria?

Figure 1: Respondents that stopped work/business as a result of physical distancing



Source: Field Survey, 2020

Figure 1 shows that more than half (61%) have stopped going to their work/business temporarily as a result of the physical distancing approach adopted by the government. 26% said they are still going to work/business, suggesting that they may be on essential services. Meanwhile, a significant 10% said they have stopped going to work permanently. This shows that indeed the physical distancing has really hampered socio-economic activities.

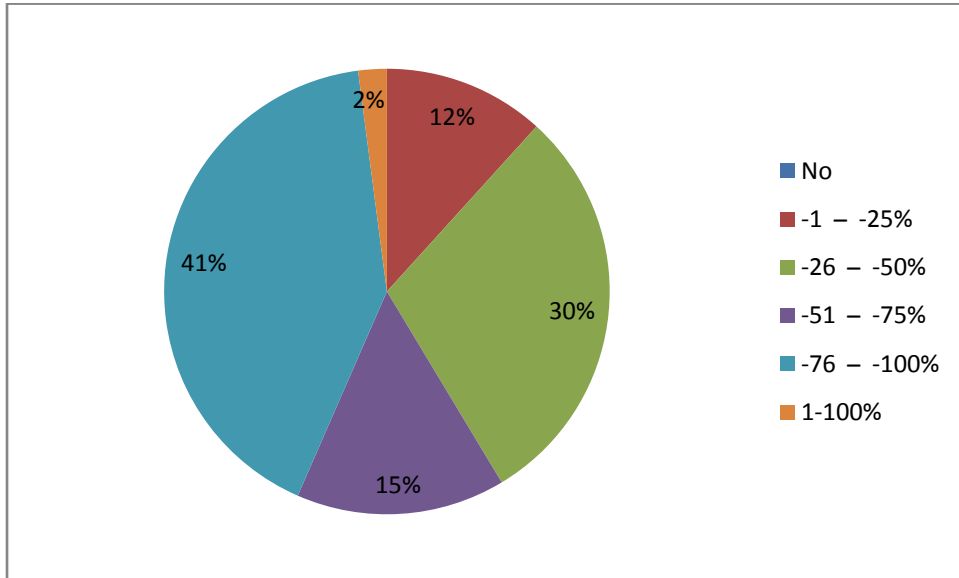
Respondents who attested to having stopped their work also identified how it has impacted their income/revenue level, purchasing power, and workforce/labour, as presented in Table 4 & Figure 2 respectively.

Table 4: Impact of Covid-19/ Physical Distancing approach on your work/business to this moment

Level of impact on work	No	-1 -25%	-26 -50%	-51 -75%	-76 -100%	1-100%	Total
Income/revenue	-	17	43	22	60	3	145
Purchasing power	-	30	47	17	51	-	145
Work force/labour	100	-	18	27	-	-	145
Total	100	47	108	66	111	3	435 (145)

Source: Field Survey, 2020

Figure 2: Impact of Covid-19/Physical Distancing Approach on Work/Business



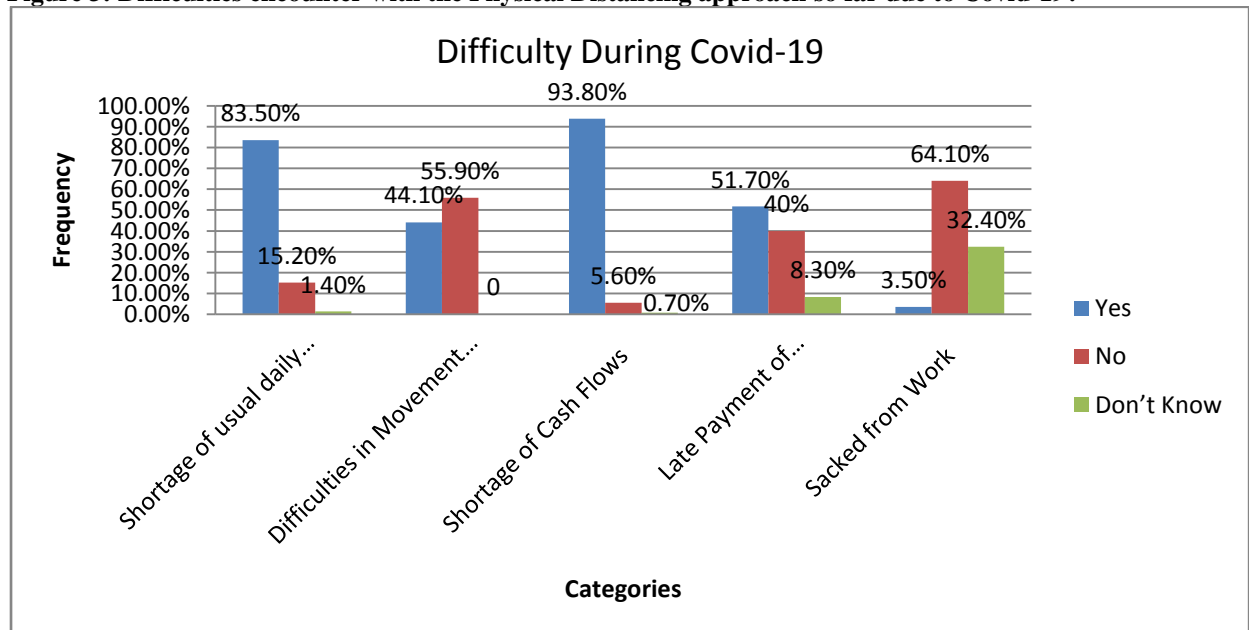
Source: Field Survey, 2020

Figure 2 shows that 12% of the respondents -1to -25 % to their level of income, purchasing power but not in their labour force. In the same vein 30% respondents have a 26-50% drop in their level of income, purchasing power and workforce/labour. Also, close to half (41%) of the respondents experienced 76-100% drop in their income level and purchasing power but not on their workforce or labour. This is probably because the nature of business or rather they are rather employees.

Finally only 2% of the respondents said they have 1-100% increase in their income level but not purchasing power or workforce/labour. This implies that majority of the respondents experienced a drop in their income level, purchasing power and workforce/labour in their respective works/business emanating from the physical distancing approach adopted by the government to curtail the spread of the novel virus.

Research Question 3: What are the socio-economic difficulties faced by the people as a result of the physical distancing approach by the government?

Figure 3: Difficulties encounter with the Physical Distancing approach so far due to Covid-19?

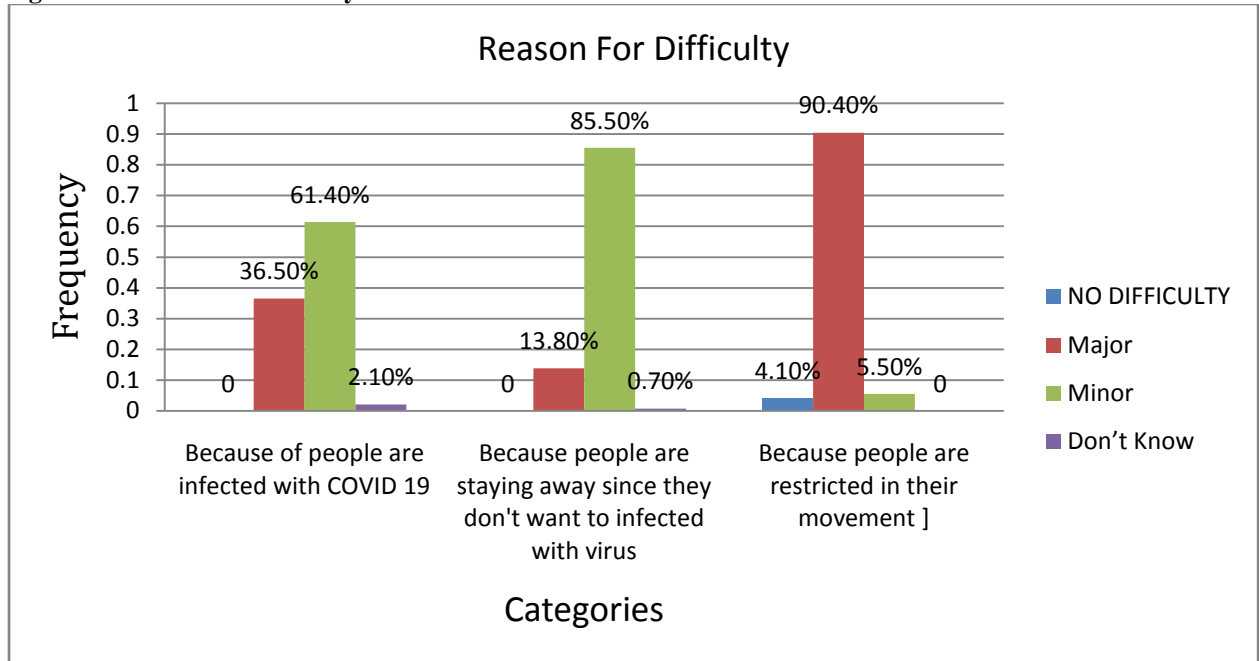


Source: Field Survey, 2020

Figure 3 above shows that respondents reveal the difficulties during Covid-19; it was observed in the figure that 83.50% experience shortage of usual daily supplies, 93.80% experience shortage of cash flows. While more than one-third (40%) of the respondents experience late payment of salary and a significant 32% were said to have experienced outright sack from work.

The inference that can be drawn from the above table that the physical distancing approach to combatting COVID 19 in Nigeria impacted the socio-economy life of the people by Slowing-down the economic growth, financial hardship for households and individuals because of lost jobs, and incomes

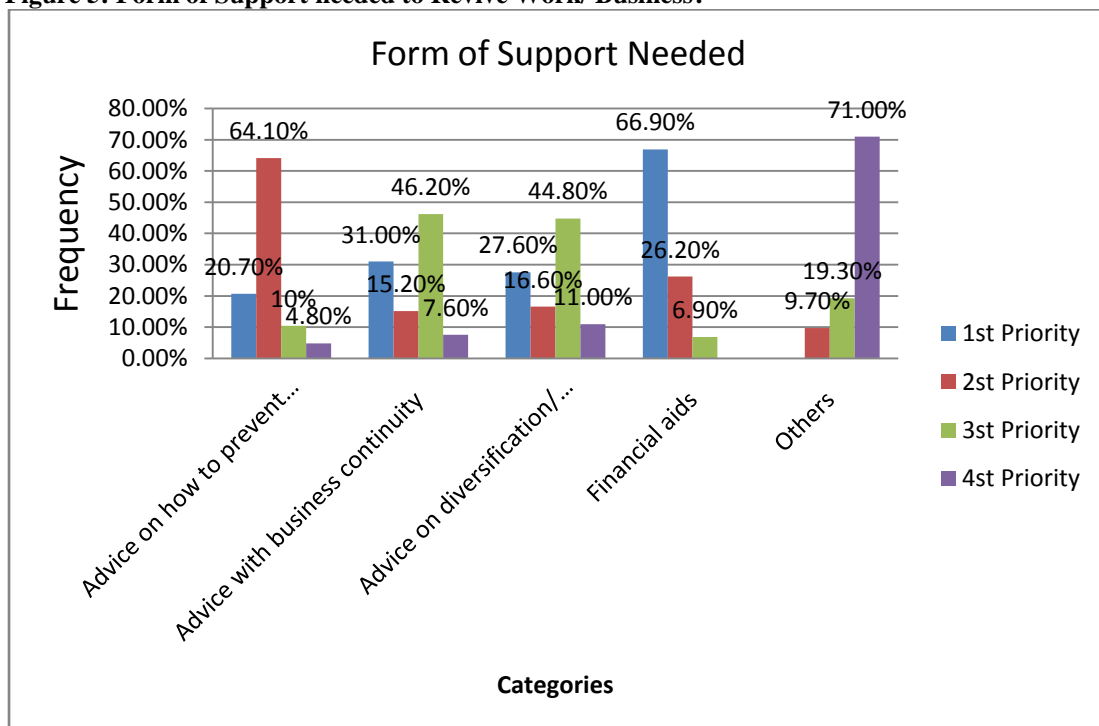
Figure 4: Reasons for Difficulty



Source: Field Survey, 2020

Figure 4 shows that majority (90.40%) of the respondents attributed the difficulties they faced due the lockdown policy implemented by the government, however 85.5% of respondents saw staying away (physical distancing) as a minor difficulties that is been faced. This is understandable since the lockdown is actually geared towards physical distancing. From table one can conclude that from the perception of the respondents the virus was not seen as a major reason this difficulties but the policy of the lockdown. Only 36.50% said because of the people are infected with virus, while more than half (61.40%) saw it as a minor difficult.

Figure 5: Form of Support needed to Revive Work/ Business?



Source: Field Survey, 2020

Figure 5 indicated the forms of supports needed to cushion the effects of these socio-economics difficulties encountered. The respondents identified advice on how to prevent infections why doing your business/work, advice with business continuity, advice on diversification/ business alternatives, financial aids amongst others. However they were ranked in their most prioritized support.

For instance as observed in the figure 5 above 64.10% sees advice on how to prevent infection why doing their business as a second priority however 66.90% said financial aid is their first priority. The implication of this is that idea staying wasn't favorable to the people. In the same a significant number of the respondents also suggested financial aids as first priority. Only at least one-third of the respondents 31% and 27% wanted advice for business continuity while the physical distancing is been observed and advice for business/work diversifications respectively. Therefore the inference we can draw from this data is that majority of the respondents are in need of financial aids to cushion the effects of the physical distancing in their business and work place.

III. CONCLUSION

In conclusion it is clear that physical distancing approach are essential in interrupting the transmission or spread of the novel virus, on the other hand the enormous effects of this approach to the socio-economics lives of the people particularly in a weak and underdeveloped digital social economy system such as Nigeria are serious concern. The resultant effects are that majority of people are experiencing drops in income, level purchasing power and most cases outright loss of jobs. Thus it is pertinent that government and relevant stakeholder develop and implement policies to cushion the effects and avoid socio-economic comatose.

Recommendations

Sequel to the findings from this study the followings recommendations are made;

1. Other non-pharmaceutical intervention such as wearing of facemasks, washing hands with soap and water or using hand sanitizer etc. should be emphasized rather lockdown to enable people return to their business/work.
2. Government at all level should provide advice for business continuity, diversification/alternatives and
3. There should provision of financial aids to assist business owners in other to cushion the effect the Covid19 lockdown.
4. Cushioning firms providing essential services, such as providing subsidies to telecommunications firms, this will room to cheaper mobile money transactions and data to improve the productivity of employees working from home.

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