

**Investigating Retailers' Compliance with Covid-19 Curfews and Business Implications: Evidence from Minna, Nigeria**

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**Abstract**

*Covid-19 (C-19) lockdowns in Niger State was aimed at curtailing spread of Corona Virus in the State as well as protecting lives of citizens in general, and retailers and their customers in particular. However, the effectiveness of the initial phase of the lockdowns and its impact on the retail sub-sector of the local economy call for interrogation and investigation. Thus, this study examined the perceived enforcement of C-19 curfews in Minna metropolis, the retailers' compliance with the C-19 curfews, and the gains and/or losses recorded by the retail sub-sector among others. The study surveyed 51 retailers of daily needs spread across 17 districts in Minna in April-2020 and obtained research data via schedule-structured interview. Following descriptive data analysis and Pearson Correlation test, the study found that the retailers were well informed about the C-19 curfews; nonetheless the retailers opened shops regularly because C-19 curfews were partially enforced, which endangered the lives of salespeople and patronising customers more so that protective measures by the retailers were largely ignored. Also, the C-19 curfew posed huge threats to the retail outlets which made them suffered declined patronage, sales turnover and profit as well as scarcity of inventory supplies, hike in transport fare, and inflated price of supplies, among others. Essentially, the study found significant positive correlation between reality of C-19 and adherence to protective measures. The study, therefore, recommends that Niger State Government should ensure adequate enforcement of the pandemic related curfews in order to protect lives of the retailers and their customers involved in commerce now and in future.*

**Keywords:** Virus, Death, Retail Business, Customers, Government, Curfew

**JEL Classification:** M31

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**1. Introduction**

Globally, government and industrial activities have been largely scaled down due to the emergence of the novel Corona-virus disease in November 2019. Corona-virus disease otherwise codenamed COVID-19 is caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-COV-2) and is highly contagious and declared pandemic by the World Health Organisation (WHO). COVID-19 (C-19) spreads primarily through droplets

of saliva or discharge from the nose when an infected person coughs or sneezes. Being a contagious disease, physical contact of people is regulated (with closures of all public facilities and business premises) to avert unprecedented spread especially that no cure has been discovered for the disease.

C-19 originated in Wuhan, China in the last quarter of 2019, and spread to continents including Africa in the first quarter of 2020. In particular, the index case in Nigeria and Niger State were recorded on the 29<sup>th</sup> February, 2020 (an Italian who arrived Lagos from Milan) and 9<sup>th</sup> April, 2020 respectively. Consequently, Niger State Government took preventive measures by first ordering closure of all schools effective from 17<sup>th</sup> March, 2020 and later imposing indefinite total lockdown of the State effective from 25<sup>th</sup> March, 2020; the curfews were relaxed for some few hours in at least two days per week in the initial phases of the lockdown and later extended to daytimes (8am – 8pm) in every three days per week in the last phases of the lockdown. The lockdown were aimed at keeping everyone at home, restricting movement of people, and stopping public gathering in large numbers in order to prevent the spread of the virus from person to person in work places, markets, worship centers and communities.

Ideally, the imposed curfews ought to be enforced by the government security agencies for the attainment of total compliance, while violators need to be prosecuted to serve as deterrent to members of the public. During such lockdowns, all micro, small, medium and larger business enterprises (MSMEs) in the formal and informal sectors of the economy (except the few exempted ones, for example private hospitals, pharmacies, medical supplies, and public utility service providers) are not expected to open for business so as not to defeat the aim of the lockdown (WHO, 2020; ). However, the observed situation in the first one month of the lockdown differs from the ideal situation: police visibility and surveillance in the Minna suburbs and districts were nearly absent, street hawkers and retail shops were active, customers went out for shopping, and tricycles and motorcycles transported retail supplies within the Metropolis. These observed abnormalities provoke questions such as: Are the retailers really aware about the C-19 curfews in Minna? Are they aware about the modes of contracting the disease, its symptoms and dangers? Are the preventive measures adhered to during business operations by the retailers and their customers? What are the implications of the lockdown to the operational performance of the retail enterprises? Thus, the need to verify the aforementioned observations stimulated this empirical study.

Furthermore, accessible empirical studies on C-19 were conducted outside Nigeria; for example, the works of Hadianfar, Yousefi, Froutaghe, Fakoor and Shakeri (2020), Kamenidou, Stavrianea, and Liava, (2020), Adom, Adu-Mensah and Sekyere (2020), and Prickett, Fletcher, Chapple, Doan and Smith (2020) relate to C-19 in Iran, Greece, Ghana and New Zealand respectively. These have left a research vacuum on issues concerning C-19 in Nigeria. Moreover, most of the business related C-19 studies focused on sectors and issues other than retailing of household daily needs. For example, Herdiana (2020) analysed the drivers and inhibitors in the course of implementing social distancing policy in Indonesia; Upoalkpajor and Upoalkpajor (2020) examined the impact of C-19 on Education sector in Ghana; and Kamenidou *et al.* (2020) examined Greek citizens' preventive and precautionary behaviour towards C-19. Thus, critical issues pertaining to customers' demand, firm supplies, sales, profit/loss, and bailouts/palliatives to the small-scale retailers during C-19

lockdowns have not been adequately addressed by earlier researches. Findings of the few C-19 studies (for example, Adom, *et al.*, 2020; Goeb, Boughton and Meredia, 2020; Prickett, *et al.*, 2020) that focused on the retail sector have not been verified to determine consistency of their findings or otherwise, which necessitated this study.

In view of the foregoing, the study seeks to determine whether the retailers perceived the C-19 curfew imposed by Niger State Government as effective throughout the period, and whether the C-19 curfew imposed by Niger State Government created business opportunities and/or threats to retailer in Minna metropolis. Also, to identify and evaluate business gains and/losses recorded by the retailers during C-19 lockdowns; and to examine the retailers' compliance with the C-19 protective orders during business hours. The scope of the study is micro and small scale retailers doing business in Minna districts and/or suburbs. These retail outlets are located along district streets, manned by their owners together with sales people, and usually use rented shops or kiosks. The occurrence of the events (first phase of the lockdown) is from late March to late April 2020, while the cross-sectional study was conducted in early May 2020. The literature scope is centered on retail business and C-19 pandemic. The research report is organised into five sections: introduction, literature review, methodology, analysis and results, and conclusions and recommendations.

## **2. Literature Review**

Studies on the impact of C-19 pandemic on business and economy of nations are beginning to emerge from different continents. In Asia where the C-19 originated, Goeb *et al.* (2020) found that 90% of retailers of agricultural inputs in Myanmar experienced at least one form of disruption (inputs demand, inputs supply and loan repayment on credit lending) due to C-19 pandemic; transportation fare caused price inflation of agricultural inputs (fertilizer and maize seeds) compared to the previous year; and sales revenue from the agricultural inputs (fertilizer, maize seed and pesticide) declined by 50% compared to the previous year. The study further revealed that 80% of the agricultural retailing outlets complied with 'washing hands' safety measures, followed by over 60% of the retailers that adopted 'wearing face coverings', almost 50% of the retailers adopted 'social distancing', and over 20% retailers sanitised shop surfaces daily, among others. Another research perspective from Evangeline and Karthick (2020) showed that social dining (the culture of sharing tables with strangers in restaurants and bars) declined by 50% during C-19 pandemic in Chennai, India, while 80% of wedding ceremonies got postponed which affected hotel bookings and restaurant business. However, 94% of restaurant operators need financial bailout from the Indian government to sustain their food businesses. Hadianfar *et al.* (2020) found that private and public schools and universities' closure did not significantly reduce the number of confirmed C-19 cases; however, implementation of social distancing caused significant decrease in the number of confirmed C-19 infections in Iran. A study by the branch of Italian and French Chambers of Commerce in Hong Kong in 2020 found that 60% of retail businesses (fashion/textile, food and beverages, accessories, cosmetics/beauty, and jewelry/watches) voluntarily closed down due to C-19 pandemic, 70% of them suffers revenue decline of over 60%, and almost 80% of the companies recorded business losses. In addition, 27% of the retail companies adopted unpaid leave for their employees during C-19 season, 20% of them reduces employees' salaries, while 36% of them retrenched their

employees. Herdiana's (2020) study identified three factors militating against effective implementation of social distancing policy in Indonesia, namely government weak capacity to enforce the policy, inconsistency of governments' policies (the central government pronounced social distancing policy while the regional government opted for total lockdown policy), and apparent violation of social distancing policies by citizens living in local communities.

In Europe where C-19 first surfaced outside Asia, Prickett *et al.* (2020) found that retail and transportation workers suffered job losses as well as underemployment in New Zealand during C-19 'Alert Level-4'. Kamenidou (2020) found that Greek citizens mostly avoided non-mandatory public transport and contact with individuals with respiratory symptoms as C-19 precautionary measures; however, the least applied precautionary measures are testing for C-19, and use of face masks in public places. In Africa, Adom *et al.* (2020) reported from their study that C-19 disrupted business operations and caused poverty among retailers (petty traders, cobblers, mobile food vendors, women carriers, and electronic appliance repairs) that survive on daily hand-to-mouth incomes in Kumasi. The retailers flouted C-19 lockdown regulations due to unbearable economic hardship, and equally expended their business capital which threatens the survival of their informal micro businesses. Upoalkpajor and Upoalkpajor (2020) found that students have awareness about C-19 virus in Tamale metropolis, Ghana.

### **3. Methodology**

This study is premised on a survey research design because the population of the study comprised small-scale retail-shop owners/operators. These retailers totaling 51 were conveniently sampled from 17 districts in Minna (Chanchaga, Shango, Sauka-Ka-Huta, Tunga, Fadikpe, Gurara, Dutsen-Kura Hausa, Dutsen-Kura Gwari, Gbakunku, Mandella, Maitunbi, Bosso Low-Cost, Bosso, Tudun Fulani, Airport Quarters, Gbeganu and Albishiri). The C-19 lockdown which restricted movement of people justifies the use of convenient non-probability sampling technique as well as limited number of 51 samples. Adom *et al.* (2020) adopted interview survey research design, and both purposive and convenient sampling techniques to select 25 retailers from the informal sector in Kumasi during C-19 lockdown. Evangeline and Karthick (2020) sampled 53 food handlers in selected restaurants in Chennai and used questionnaire and interview for data collection during C-19 study.

Days in which the curfews were relaxed were used to engage some research assistants for data collection through the use of scheduled-structured interview instrument. Structured interview is the alternative for questionnaire in an interview (Cooper and Schindler, 2011) and it is relevant in situations where the interviewees are illiterates and large in numbers. For example, findings from pilot study showed that majority of the retail outlets are manned by persons who cannot read nor write in English language. Also, data from structured interview instrument are easy to quantify and analysed descriptively (May, 1993). A combination of dichotomous, multiple choice, and scale questions were featured in the interview instrument. The research data were analysed using descriptive statistics (frequency count, relative frequency and charts). The descriptive statistics were essentially used for data analysis in the earlier similar studies by Upoalkpajor and Upoalkpajor (2020), Kamenidou *et al.* (2020), Goeb, *et al.* (2020) and Evangeline and Karthick (2020). According to Keller and Warrack (1999), the importance of descriptive statistical techniques should not be

underestimated because graphical techniques and numerical descriptive measures such as averages are used to summarise and present data to yield useful information for decision making and recommendations by company managers and government officials.

Four research hypotheses were postulated and tested using Pearson's Correlation ( $r$ ). The research variables in the four hypotheses are C-19 curfew information versus C-19 curfew compliance; C-19 Curfew enforcement versus C-19 curfew compliance; awareness about dangers of C-19 versus protective measures against C-19; and reality of C-19 versus protective measures against C-19. All tests were carried out by means of Social Science Statistical Package (SPSS) at 95% confidence interval.

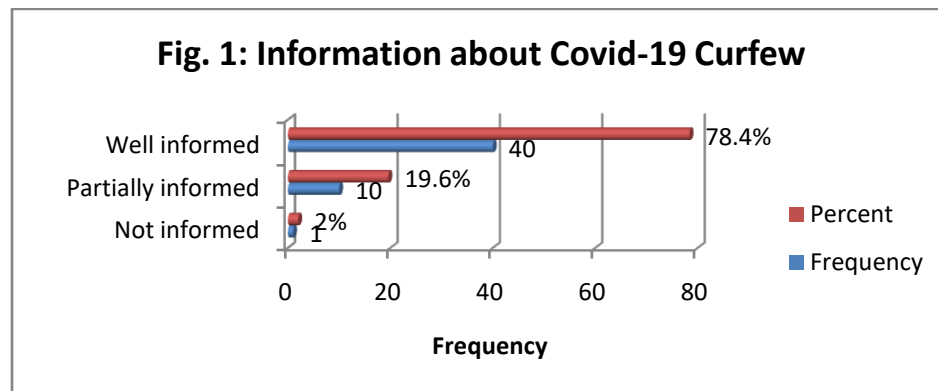
#### 4. Results

##### *Analysis and Interpretation*

Out of 51 retailers interviewed, 40 or 78.4% respondents operate either provisions retail shops only, foodstuff shop only, or both provisions and foodstuff shop only, while the remaining 11 or 21.6% respondents are in *other types of retailing* such as GSM credit cards, cell phone accessories, electrical accessories, and medicine stores.

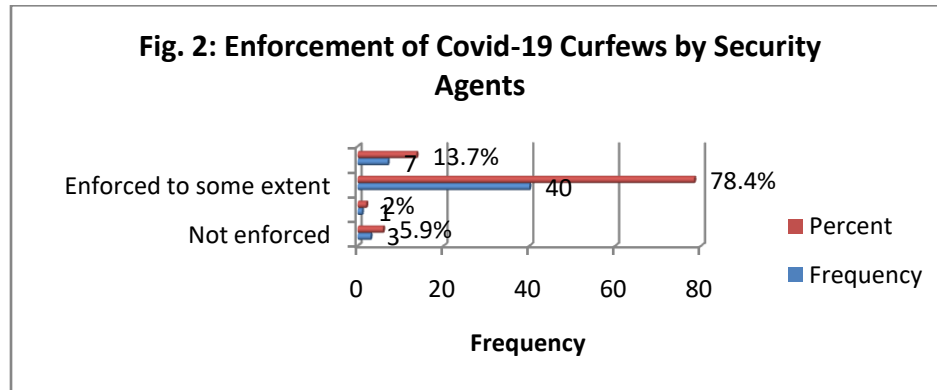
##### *Effectiveness of Covid-19 Curfews in Minna*

The first stage in fighting C-19 pandemic is to create awareness to the public. Thus, this study inquired about the retailers' awareness on C-19; data presented in Figure 1 indicates that majority of the respondents (40 or 78.4%) are *well informed* about the disease, while just 10 (19.6%) and one (2%) are *partially informed* and *not informed* respectively. This is consistent with the finding of Upoalkpajor and Upoalkpajor (2020) that students in Tamale metropolis have awareness about C-19.

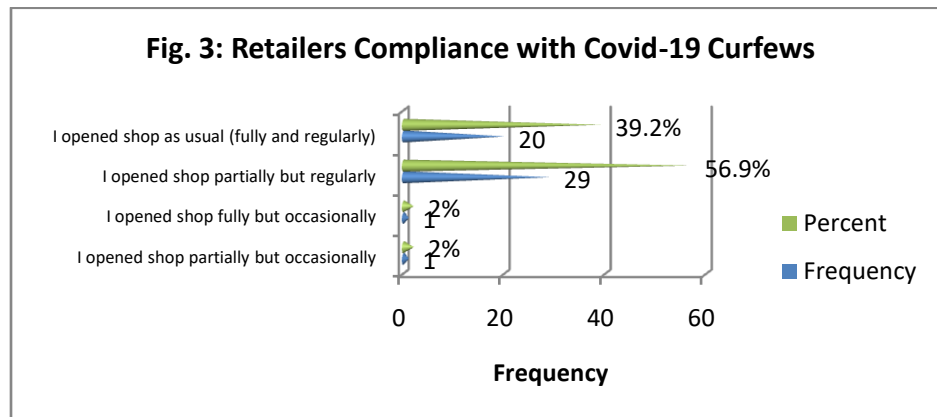


The best strategy in curtailing the spread of novel C-19 was total lockdown of the economy and ensuring everyone stays at home except health and essential workers. Thus, this study sought to know the extent of government enforcement of C-19 lockdowns in Minna metropolis; Figure 2 shows that majority of the respondents (40 or 78.4%) agreed that the curfews were '*enforced to some extent*' and 7 or 13.7% percent of the respondents agreed that the curfews were '*enforced to a large extent*'. However, only 3 (5.9%) and 1 (2%) of

the respondents agreed that the imposed curfews were ‘not enforced’ and ‘I don’t know’ respectively.



Furthermore, the study probed the retailers’ compliance with the lockdown orders in Minna metropolis. Figure 3 shows that majority of the respondents amounting to 29 (56.9%) did not comply with the orders as they ‘opened shops partially but regularly’, followed by 20 (39.2%) respondents that did not comply with the orders at all as they ‘opened shops as usual (fully and regularly)’, and respondents that ‘opened shop partially but occasionally’ and ‘fully but occasionally’ are 2 or 4% each. Cumulatively, retailers that opened shops regularly are 49 or 96%, while those that opened shops occasionally are 2 or 4%. This is consistent with the finding of Adom *et al.* (2020) where majority of the retailers flouted C-19 lockdown regulation in Kumasi, Ghana.



In terms of the correlation between retailers’ level of information about C-19 curfews and compliance with the curfews, Table 1 shows that the two variables are weakly negatively correlated ( $r = -.136$ ) insignificantly ( $P = .341; > .05$ ). That is, high level of information about C-19 curfew generated low level of compliance to the curfew orders. The variance ( $r^2$

= 1.85) shows that retailers' *high level of information about C19 curfews* accounted for almost 2% declined *compliance to the imposed curfews*.

Table 1: Correlations (curfew information and curfew compliance)

		Level of Information about C19 Curfews	Retailers compliance with the curfews
Level of Information about C19 Curfews	Pearson Correlation	1	-0.136
	Sig. (2-tailed)		0.341
	N	51	51
Retailers compliance with the curfews	Pearson Correlation	-0.136	1
	Sig. (2-tailed)	0.341	
	N	51	51

Source: Field Survey, 2020

As regards correlation between perceived curfew enforcement by the government and compliance with the curfew, Table 2 shows insignificantly weak positive correlation of 10.2% ( $r = .102$ ;  $P = .478$ ,  $> .05$ ) between the two variables. Impliedly, weak enforcement of curfew by government authorities led to the low compliance by the retailers. The *weak enforcement of curfew* accounted for 22.8% variation or non-compliance by the retailers ( $r^2 = 22.8\%$ ).

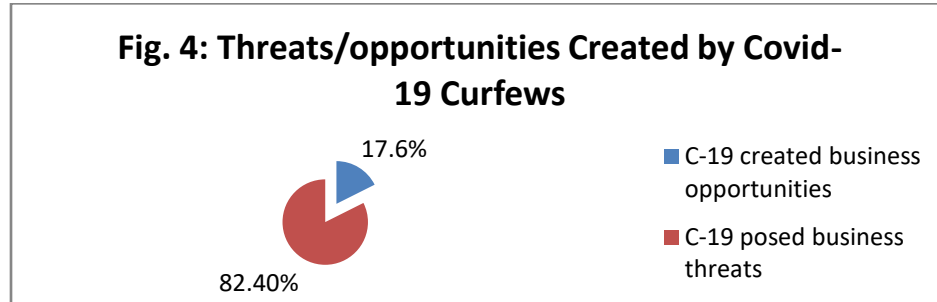
Table 2: Correlations (curfew enforcement and curfew compliance)

		Curfew enforcement by the Govt	Retailers compliance with the curfews
Curfew enforcement by the Govt	Pearson Correlation	1	.102
	Sig. (2-tailed)		.478
	N	51	51
Retailers compliance with the curfews	Pearson Correlation	.102	1
	Sig. (2-tailed)	.478	
	N	51	51

Source: Field Survey, 2020

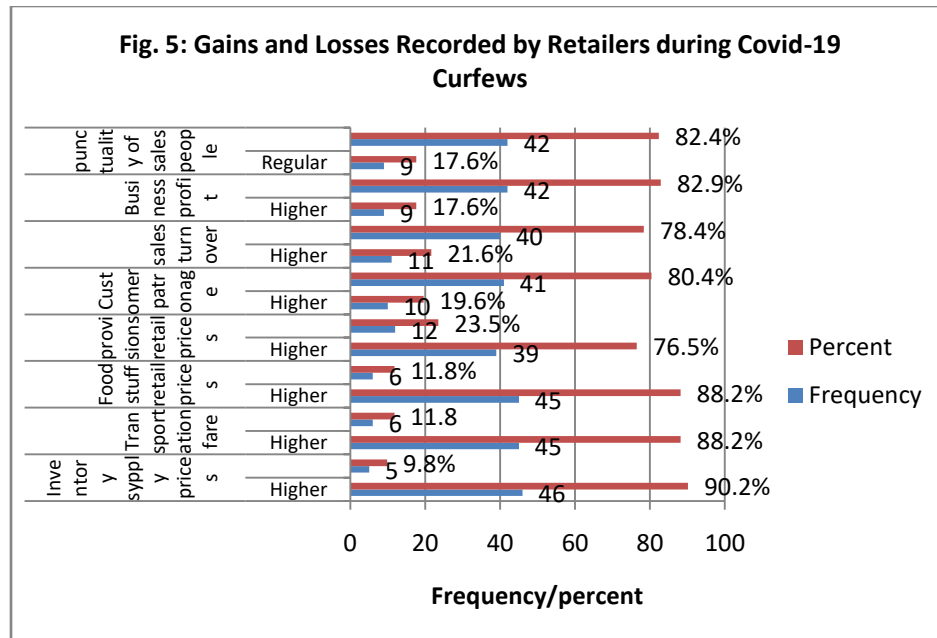
#### *Business Opportunities and Threats*

The C-19 lockdown is an unusual situation that may create either business opportunities or threats to retailers of household needs. Thus, a probe on whether the C-19 curfews created business opportunities or threats to the retail enterprises shows 82.40% response for threats and 17.6% for opportunities (see Figure 4).



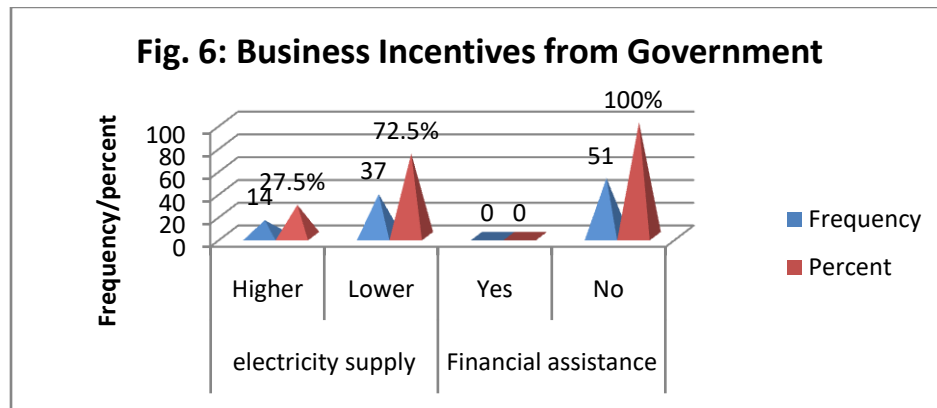
*Gains and Losses Recorded by Retailers during Covid-19 Curfew*

Figure 5 shows that majority of the respondents (46 or 90.2% and 45 or 88.2%) agreed that prices of supplies and transport fare respectively increased during the C-19 lockdown, which according to 45 or 88.2% and 39 or 76.5% respondents translated to inflated prices of foodstuffs and provisions respectively. Also, majority of the respondents (41 or 80.4%) agreed that customers' patronage declined during the C-19 lockdown in Minna, which according to 40 or 78.4% and 42 or 82.4% respondents translated to decline sales turnover and profit respectively. In addition, 42 or 82.4% of the respondents agreed that punctuality of sales people to work was irregular during the C-19 lockdown. These findings are almost consistent with that of Italian and French Chambers of Commerce (2020) where most of the retail companies in Hong Kong experienced revenue decline and losses.



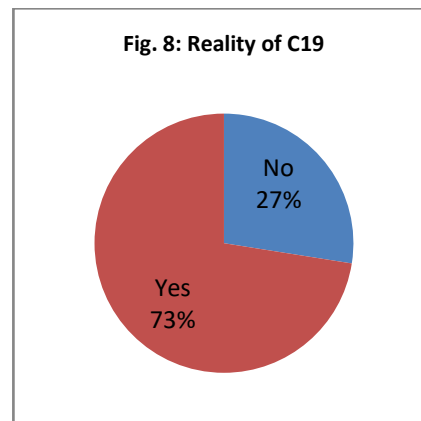
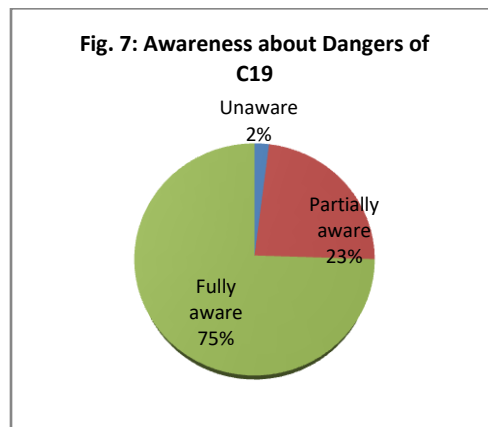


Since government projected that the private sector (small-scale retail enterprises inclusive) will suffers losses due to C-19 lockdown and may be incentivized by bailouts, the study inquired whether the retailers have received any assistance from the government. Figure 6 shows that all the respondents agreed that no financial incentives were received during the lockdown; similarly, majority of the respondents (37 or 72.5%) agreed that daily supply of electricity reduced during C-19 lockdown as against 14 or 27% respondents that supported daily increase of electricity supply in Minna.



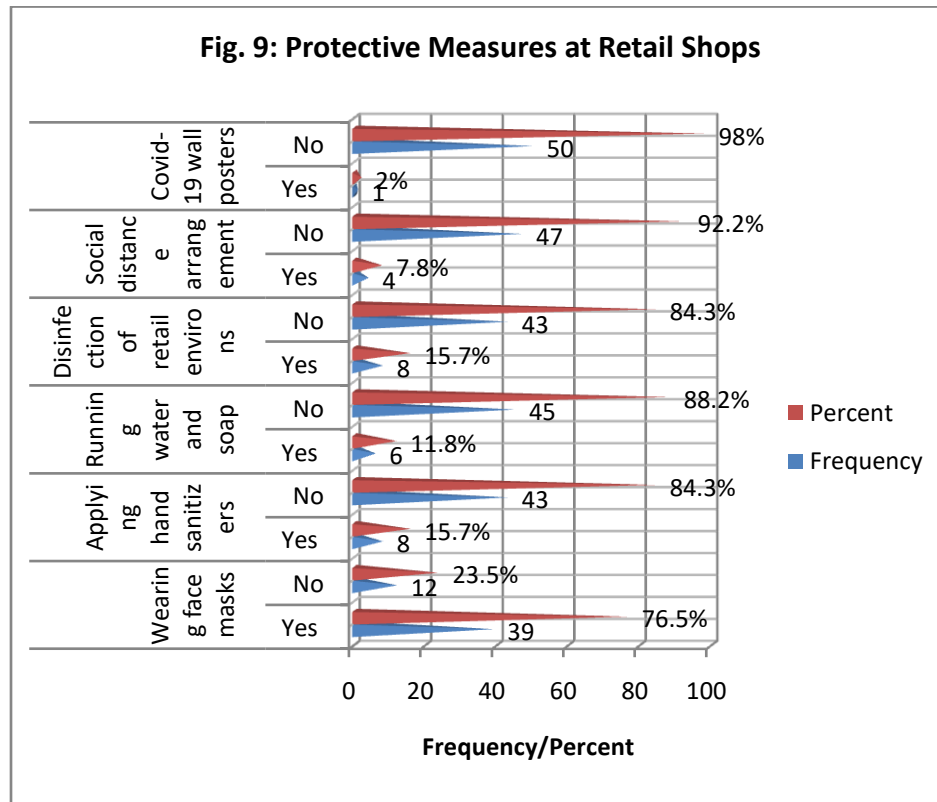
*Retailers' Awareness about the Dangers of C19 and their Compliance with the Protective Instructions*

Included in the public awareness programme of the government are the dangers and fatalities associated with C19 disease, hence the interrogation on the retailers' awareness about dangers of C19 and related matters. Figure 7 shows that majority of the respondents are *fully aware* of the dangers of C-19, followed by 23% respondents that are *partially aware*, and 2% respondents that are *unaware*. Cumulatively, 98% of the respondents are aware of the health risks of C-19.

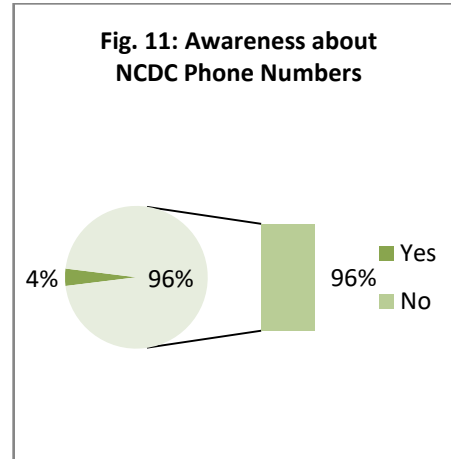
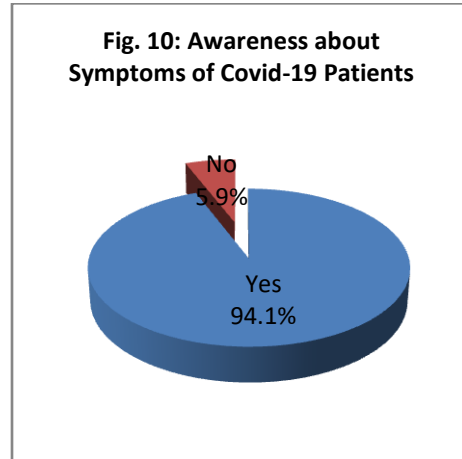


Awareness about C-19 may not necessarily translate to the belief that the virus is real. Therefore, the study questioned retailers on the reality of C-19. Result of data analysis in Figure 8 indicates that majority of the respondents believe that C-19 is real as against 27% respondents that do not.

To protect citizens from contracting C-19 disease especially when it becomes necessary to go out to re-stock basic needs during curfew relaxation hours and days, government mandated the use of protective gadgets and personal hygiene. Consequently, the study examined retailers' compliance with the government recommended C-19 protection mechanisms. Results in Figure 9 shows respondents' compliance with *wearing of facemasks* (76.5%), and non-compliance with *applying hand sanitizers* (84.3%), providing *running water and soap (washing hands regularly)* (88.2%), *daily disinfection of retail shop environs* (84.3%), *social distancing marks at the retail shop* (92.2%), and *C-19 wall posters* (98%). In Goeb *et al.* (2020)'s study, majority of agricultural input retailers also wash hands regularly and wear face masks, while majority of them failed to use hand sanitizers.



Further inquiry revealed that majority of the respondents (94.1%) are aware of the symptoms of C-19 as against 5.9% respondents that are unaware.



Similarly, 96% of the respondents are aware and handy with the phone number of National Center for Disease Control (NCDC) in Minna in case of emergencies involving any market participant. However, only 4% of the respondents do not have the contact phone number.

Result of Pearson's Correlation test presented in Table 3 shows a weak positive correlation of 8.4% ( $r = .084$ ) between awareness of dangers of C-19 and compliance with protective measures, which is insignificant at 95% confidence interval ( $P = 559; > .05$ ). The  $r^2$  of 0.7% shows that respondents' awareness about dangers of C-19 is responsible for as little as less than 1% change in *respondents' compliance with protective measures*.

Table 3: Correlations (Awareness on the dangers of C-19 and Protective Measures in Retail Shops)

		Awareness about the dangers of C19	Protective Measures in Retail Shops
Awareness about the dangers of C19	Pearson Correlation	1	0.084
	Sig. (2-tailed)		0.559
	N	51	51
Protective Measures in Retail Shops	Pearson Correlation	0.084	1
	Sig. (2-tailed)	0.559	
	N	51	51

Source: Filed Survey, 2020

Table 4 shows the results of correlation test between two variables: *reality of C-19* and *protective measures*. Reality of C-19 is positively correlated with protective measures by 39.5% ( $r = .395$ ) which is significant at 5% significant value ( $p = .004; < .05$ ). That is, the more the retailers believe that C-19 is real, the more they adhere to protective measures against C-19.

Table 4: Correlations (Belief on the Reality of C-19 and Protective Measures in Retail Shops)

		Believe that C19 is real and fatal	Protective Measures in Retail Shops
Believe that C19 is real and fatal	Pearson Correlation	1	0.395**
	Sig. (2-tailed)		0.004
	N	51	51
Protective Measures in Retail Shops	Pearson Correlation	0.395**	1
	Sig. (2-tailed)	0.004	
	N	51	51

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Field Survey, 2020

### 5. Conclusion and Recommendations

In response to Corona-Virus global pandemic, Niger State government first imposed curfews in March-2020 to checkmate spread of the virus among citizens especially in workplaces, markets, schools, public transports, stadia and communities. It was foreseeable that the lockdown would affect every sector of the economy; hence, the inquiry on the retailers' compliance with the C19 curfews in Minna metropolis and the consequential effect of such decision. The study found that the surveyed small-scale retailers of daily needs are well informed about the C-19 disease, its symptoms and dangers, and the imposed curfews. However, the surveyed retailers did not comply with the C-19 curfews as they operated regularly without adequate protective measures even though the government security agents went round to enforce the curfew *to some extent*. Nonetheless, the surveyed retailers suffered decline in patronage, sales and profit and did not receive any incentives from the government as palliatives. Importantly, the study found significant positive correlation between reality of C-19 and adherence to protective measures.

Consequently, the study concludes that the retailers in Minna capitalised on weak enforcement of lockdown by government security personnel to open retail shops regularly during C-19 lockdowns without providing protective measures which endangered the lives of market participants in the retail circle (retailers, suppliers and customers) and threatens sustenance of commerce. Retailers who believe that C-19 is real are more likely to use recommended preventive and protection measures. The study, therefore, recommends that Niger State Government should ensure total enforcement of the imposed curfew by providing adequate logistics to security personnel cum monitoring the surveillance operations in order to achieve the desired objectives of forestalling rapid spread of the infectious disease and loss of lives especially in the retail sub-sector of the economy in Minna. Retailers who fail to respect lockdown orders and/or provide safety hygiene and protective arrangements in Minna should be sanctioned in accordance with the laws to serve as deterrent to other retailers. Retailers should also comply with government lockdown policy as a matter of civic responsibility; they should equally adopt all the C-19 preventive measures to protect lives of customers, suppliers and salespersons. Finally, the small-scale retailers in Minna should be incentivized by Niger State Government through tax breaks and bailout funds to cushion the effects of losses suffered due to the lockdowns.

*Limitations and Future Research*

Caution should be exercised in generalising this study's findings and applying its recommendations because the study is unavoidably characterized with two methodological limitations. First, the use of convenience non-probability sampling introduced sampling-bias that affects sampling and data accuracy. Second, the sample size of 51 retailers in Minna metropolis was not estimated statistically and may not be an adequate representation of the retail sub-sector. Arising from the outlined research limitations, future research with superior methodological approach is encouraged to increase the stock of research reservoir.

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