Feed the Future Nigeria Agricltural Policy Activity

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Nigeria Agricultural Policy Activity

The impact of COVID-19 and associated shocks on Agri Food SMEs along the poultry and fish value chains in Ebonyi State

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Introduction and Background

This policy research note summarizes the key findings from a study on the impact of COVID-19 and associated policies on SMEs along the poultry and fish value chains in Ebonyi State. We leverage on monthly data collected from 63 agri-food enterprises over 8 months (February 2020 to September 2020) to understand if and how business operations were affected and if this impacts across different nodes of the supply chains; i.e. lateral supply chain actors (feed, chicks and fingerlings' producers) upstream actors (e.g. fish and chicken farms, fishers), midstream actors (fish processors, fish traders/wholesalers, chicken traders)and downstream actors (e.g. retailers of egg, chicken and fish).

Key Messages:

- Though Ebonyi State did not implement a full lockdown in response to COVID-19 SMEs in the midstream and lateral supply chain nodes of the study value chains still faced disruptions that affected their activities and the activities of enterprises in related value chain nodes.
- The challenges firms faced in Ebonyi State changed from supply chain disruptions (due to lockdown in other states) to financial challenges due to lower demand, increased default in payment (among customers) and the increased sales on credit adopted by SMES in response to early challenges with market access. None of the respondents in the study sample received any assistance from any source, including government.

The sample of 63 enterprises used for this study was selected using a modified snowballing approach. First, the study team facilitated a meeting between the state data collector and the Ebonyi State Ministry of Agriculture. The ministry built and keeps a repository of key operators in the agricultural sector in the state. The ministry provided the data collector with a list of potential respondents from the chicken and fish subsectors. The selected nodes were upstream, midstream, downstream and lateral supply chain nodes as defined above. At least one enterprise from selected nodes of the value chains was randomly picked. After a brief introduction, selected respondents were asked for their consent to be part of the study. They were then asked to provide additional names and phone numbers of persons engaged in the same activity as them or another activity along the poultry and/or fish value chains, for consideration as respondents. To complete the list of proposed respondents the data collector also reached out to professional associations and networks operating in the study locations. Once all the chosen respondents were confirmed to be engaged in the particular activity ascribed to them and consented to be part of the study, the data collector made monthly calls to the respondents to collect the required data. The first section of the interviews collected location and characteristics of business owner data. This was supplemented by information on the business operating days, input use decisions, input

prices, sales decisions, prices, challenges and assistance received. Information on these business operation activities was collected monthly for the months of February 2020 to September 2020.

A Summary of Covid-19 Cases in Ebonyi State

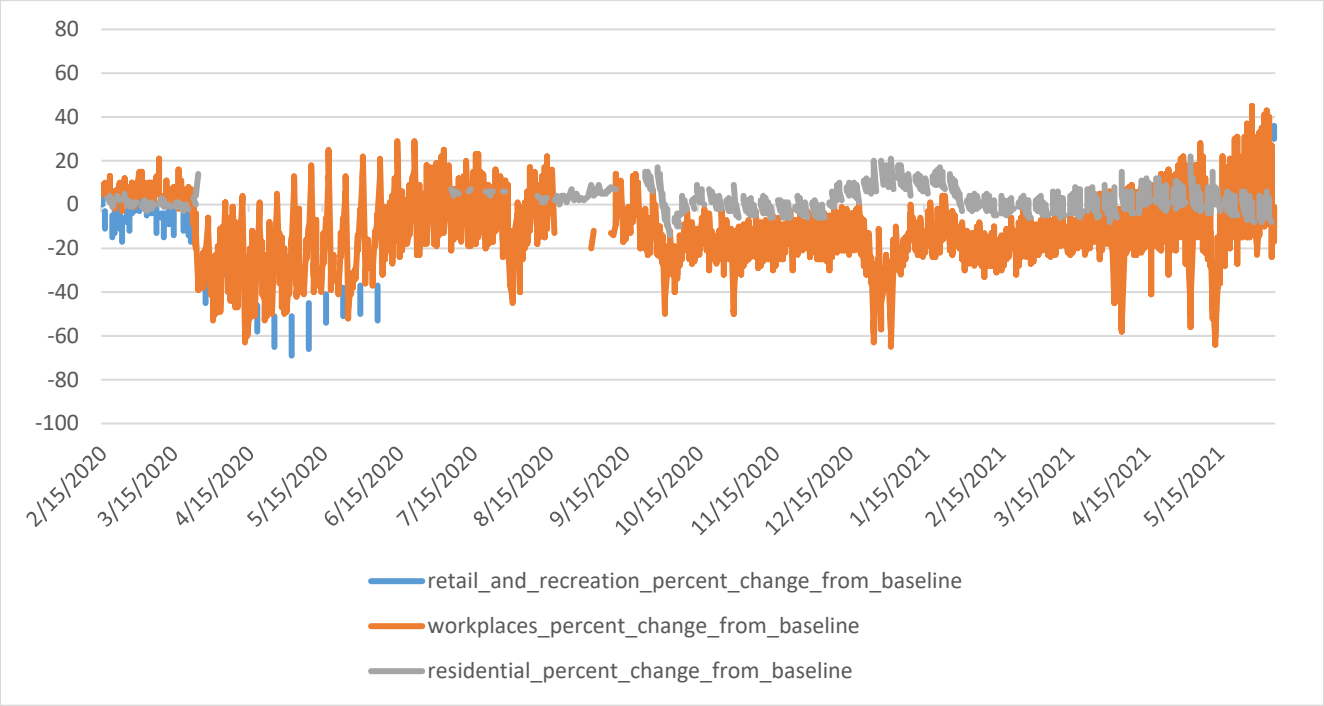
On April 26th, 2020, Ebonyi State recorded its index case – "imported" by a 31-year-old transporter from Ukawu, who conveys food items to and from Ore in Ondo State (https://www.vanguardngr.com/2020/04/covid-19-ebonyi-records-first-index-case/. As of 10 January 2021 Ebonyi State had recorded 45 deaths from 1,147 confirmed cases. The appearance of an index case on 26 April 2020 made Ebonyi State one of the last in the South-east geopolitical zone of Nigeria to report a case (Azuogu et al., 2021). Though the state had not officially recorded an infection, other states in Nigeria had been recording cases and the border of Ebonyi State was closed on the 28th of March 2020 (Premium Times Newspaper, 2020). The governor of the state addressed the press and stated that people were not allowed to go in and out of the state. Only essential persons in vehicles carrying food, construction materials and medical supplies were permitted entry into the state. In addition, a dusk to dawn curfew (7pm to 7am) was imposed by the state governor on 18 April 2020. Public gatherings including church and mosque services, government functions and social gatherings of more than 20 people were also prohibited. Only markets in the state were officially allowed to operate (https://guardian.ng/news/covid-19-umahi-imposes-dusk-to-dawn-curfew-on-ebonyi/). On 20 March 2020 the government of Ebonyi State ordered the immediate closure of all schools in the state (https://www.channelstv.com/2020/09/18/ebonyi-to-reopen-schools-on-october-5/).

Figure 1 below presents the Google Mobility Index (GMI) of Ebonyi State from February 2020 to May 2021. The GMI measures visitor numbers to various categories of locations such as grocery stores, parks and train stations every day and compares changes in these numbers relative to a baseline day (Google, 2021). For this study we consider movements from February (before the pandemic began to affect movement and economic activities in Nigeria) to May 2021. Figure 1 reveals that though there wasn't an increase in residential movement during this period, retail and recreation movements still declined. The reduction in retail and recreation movement likely reflects the closure of schools, reduced movements during the curfew and restrictions on social gatherings and reduced retail and recreation activities due to the scare about the COVID-19 pandemic as it spread across the country. Figure 1 also reveals a reduction in workplace index between the months of March-May likely explained by strategies such as working remotely or from home in line with COVID-19 social distancing recommendations adopted by many businesses in Nigeria https://www.aljazeera.com/economy/2020/3/30/nigeria-announces-lockdown-of-major-cities-to-curb-coronavirus).

Four (4) key findings on the impact of COVID-19 and associated policies on business operation in Ebonyi State.

1. **Though Ebonyi State did not implement a full lockdown in response to COVID-19, SMEs in the midstream and lateral supply chain nodes of the study value chains still faced disruptions that affected their activities and the activities of enterprises in related value chain nodes.**

Figure 1: Google Mobility Index during periods of the COVD-19 pandemic in Ebonyi State



Source: *https://www.google.com/covid19/mobility/*

Table 1 shows the average number of days businesses were in operation across the study months. It reveals that there was a reduction in the average number of days of operation for enterprises in the lateral and midstream nodes in April. This coincides with when the majority of the state's restriction came into effect. They include the closure of the state borders, the imposition of a curfew from dusk till dawn and restrictions on social gatherings with more than 20 people. In the lateral and midstream node, compared to February when the enterprises operated for 82% of the possible days in the month (24/29) we see that these enterprises only operated for 67% of the possible days (20/30) on average in April. Similarly, for firms in the midstream, there was a decline in the average number of days, businesses were in operation from 82% (24/29) in February to 70% (21/30) in April. These two nodes of the value chains that were more affected (i.e., feed millers, day old chicks and fingerlings providers in the lateral supply chain and feed millers and wholesalers in the midstream) are value chain nodes that typically trade larger volume and operate across multiple states supplying inputs to poultry and fish farms. Closely associated with their cross-border activities, they are also often found to operate late in the evenings, early in the mornings or overnight. For example, to avoid exposure to heat during transportation, day old chicks are often moved from production regions to markets in the early hours of the morning (Eniola *et al.,* 2020). However, Table 1 reveals that any impact of restrictions on the number of days of operations were short lived as businesses appear to have resumed normal operations from May 2020 onward.

Table 1. Average number of days of operation of businesses during the study period

	Feb	Mar	Apr	May	June	Jul	Aug	Sept
Value chain nodes								
Lateral	24	24	20	24	25	25	25	21
Upstream	27	29	28	30	28	29	29	28
Midstream	24	25	21	27	27	29	28	27
Downstream	24	25	24	28	28	29	28	25
Observations	25	26	23	27	27	28	28	25

Source: Author calculations

2. The disruption of activities of lateral supply chain actors and midstream actors correlates with disruption to other supply chains that typically depend on their products

Table 2 shows the share of SMEs that reported they faced challenges during the study period. It reveals that though the share of enterprises reporting challenges in Ebonyi State was about 20% or less over the study months, the share of enterprises in the upstream and downstream reporting challenges increased in April 2020. This coincides with when the border closure restriction and curfew were in full operation. This impact appears to be more for enterprises upstream where the share doubled from 5% in March to 10% in April and increased further in subsequent months. A closer analysis of the challenges reported most frequently by enterprises upstream (e.g. farmers) in April, reveals that the main challenge faced by farmers upstream was difficulty in accessing markets, inputs, transportation and storage (see figure 2). While this could be linked to the border closure and curfew, it could also be linked to the reduced activities of value chain actors in the lateral and midstream nodes for the month of April (see Table 1). Reduced activities of value chain actors in the lateral and midstream could also have affected the ability of enterprises upstream (such as poultry and fish farmers) to access their key inputs (feed, day old chicks and fingerlings) provided by the lateral supply chain or their ability to sell to the wholesalers and processors in the (midstream) alongside other input or output markets beyond the state. Post April, we note that the major challenge reported by the upstream actors was no longer difficulty with access to markets but a lower demand for their products, the typical challenge faced by SMEs in the state, albeit at higher levels post April compared to February and March.

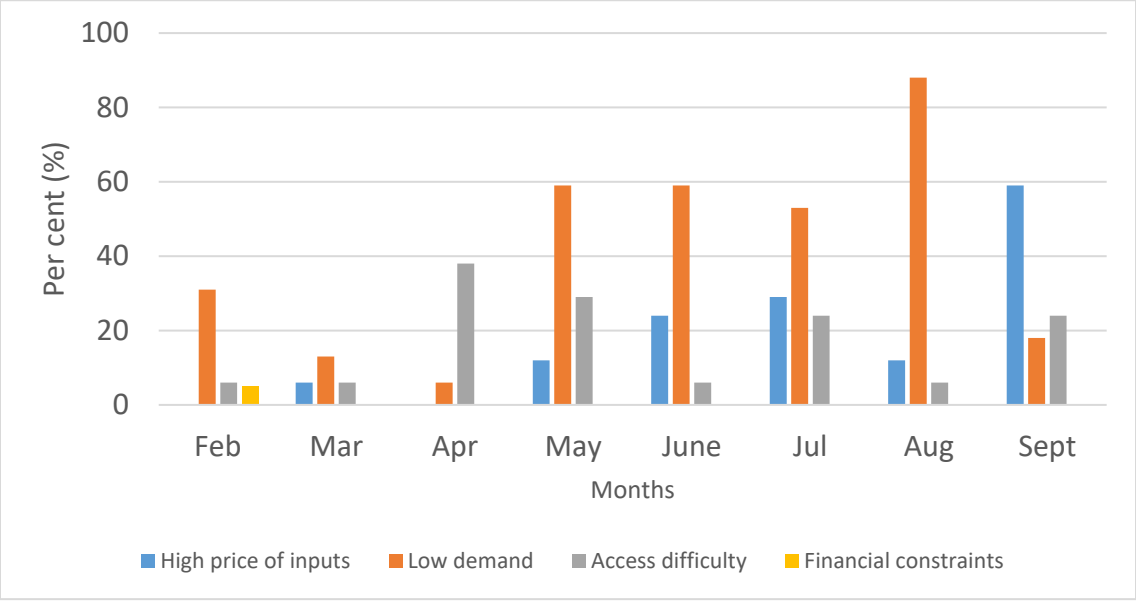
A similar observation was noted for enterprises in the downstream. Figure 3 presents the nature of the challenges reported by SMEs in the downstream of the fish and poultry value chains (i.e. fish, chicken and egg retailers). We also note a slight increase in the share of businesses reporting challenges in April and subsequent months compared to earlier months (before COVID-19 cases and associated policies were implemented) of March and February. We note that for the month of April, the main challenge reported by all SMEs that reported facing challenges was again difficulty in accessing markets, inputs, transportation and storage. While this could be due to challenges associated with activities hindered by the border closure and curfew, it could also be due to reduced access to their produce (eggs, chicken and fish) from the wholesalers whose activities were significantly reduced in April (see Table 1) and or farmers who faced challenges accessing inputs from the lateral supply chains. Again, it is interesting to note that from May onwards, the major challenge reported by downstream actors is no longer difficulty with accessing markets, inputs etc. but rather low demand for their products. Together these results show how the interconnected nature of food supply chains implies that shocks to one node can have a ripple effect on other nodes.

Table 2: Share (%) of businesses that faced challenge during the study month

	Feb	March	April	May	June	July	Aug	Sept
Lateral	8	8	4	4	2	1	-	2
Upstream	7	5	10	16	16	17	17	17
Midstream	14	15	15	16	16	16	15	14
Downstream	8	8	11	14	14	13	14	12

Source: Author calculations

Figure 2: Nature of challenges faced by enterprises in the upstream of the poultry and fish value chains.

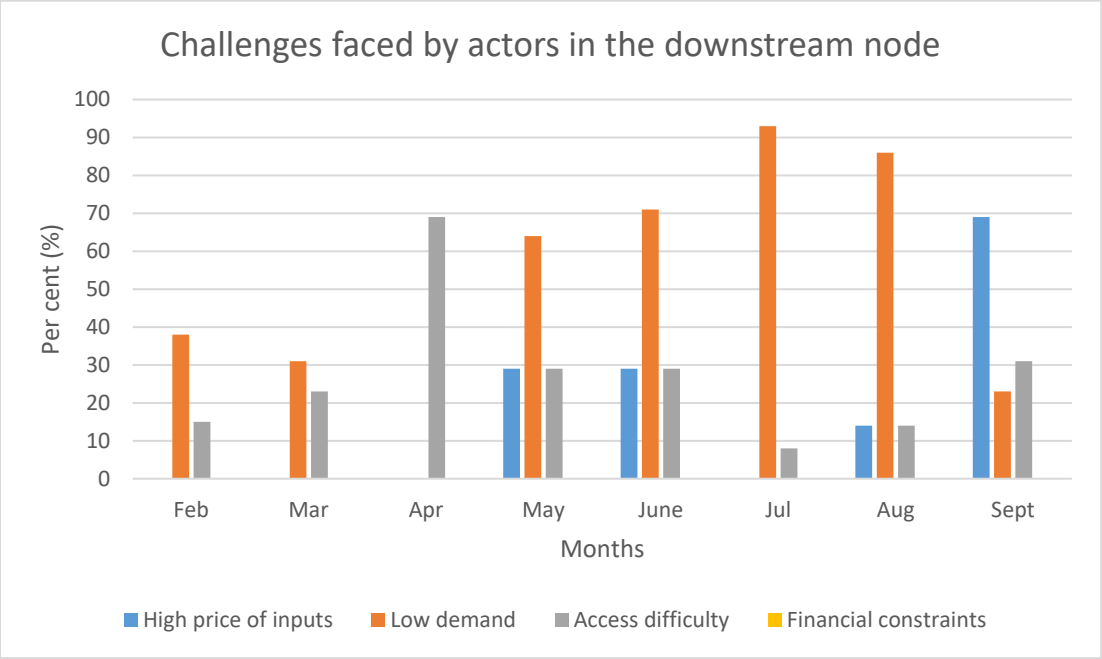


Source: Authors calculations

1. **The nature of key challenges firms in Ebonyi State faced changed over time revealing the likelihood of additional indirect medium-term impacts of supply chain disruptions on SMEs in Ebonyi**

Figure 4 presents the nature of major challenges faced by the study SMEs over the study months. We note 3 key points from the figure. First, we see that the nature of challenges faced by SMEs changed over the study months. On average, challenges with product demand appears to be a key challenge faced by SMEs along the poultry and fish value chains in Ebonyi State. However, while low demand was the problem reported by the largest share of SMEs in most months between February and August, the challenge that was most frequently mentioned in September is higher input prices. In addition to the high inflation observed in Nigeria more generally, this spike in high input prices in September may reflect the response of businesses (input suppliers) to earlier disruptions as well as other more recent shocks to input supply chains due to lower supply or increased costs.

Figure 3: Nature of challenges faced by enterprises in the downstream of the poultry and fish value chains

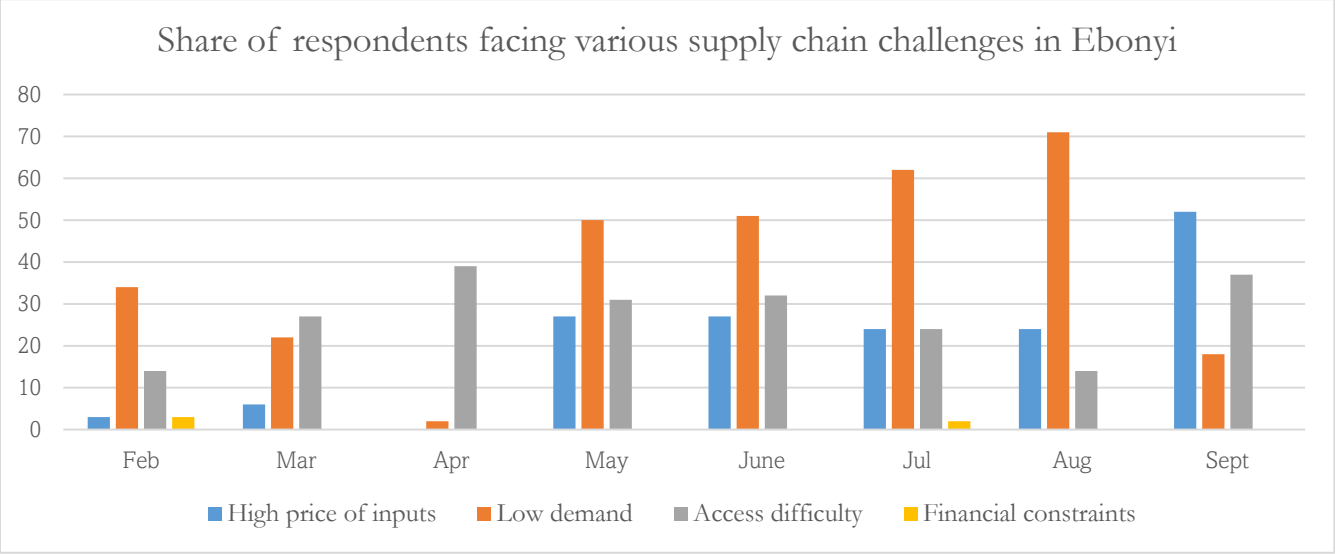


Source: Authors calculations

Second, Figure 4 reveals that there was a significant decline in demand for SME products (as revealed by the spike in complaints about low demand) between the month of May-August. By August 70% of SMEs faced this challenge; more than double the share responding in February and a threefold increase over the share reporting this challenge in March. This could be due to post lockdown income shocks for consumers alongside demand responses to higher production cost due to increased input prices.

Third, we find that the major challenge faced in Ebonyi State during the border closure and associated restrictions to movement and business activities (April) was accessing inputs and third-party logistics services (3PLS). This was faced by almost 40% of SMEs in the state in April compared to just over 10% in February and about 25% in March. The spike in SMEs facing challenges accessing these 3PLS is likely due to the border closure, movement restrictions that limited SME ability to access these services for facilitating input and output movements. This clearly reveals that the movement restrictions in Ebonyi State, though not as restrictive as those of other states such as Lagos, Ogun, Kaduna and Abuja, still significantly affected business activities in the state.

Figure 4. Nature of challenges faced by businesses during the study period



Source: Authors analysis

2. **Support to agri-food SMEs along the poultry and fish value chains in Ebonyi State was non-existent**

Although businesses in the study sample reported facing challenges during the months the survey was carried out, none of the businesses indicated receiving any form of assistance from the government (federal, state or local level), NGO's or religious organizations in the state. Interestingly, no enterprises reported receiving assistance from friends or family either. This demonstrates that agri-food SMEs were left to absorb the shocks associated with the COVD-19 pandemic themselves which could have significant implications on their survival in the long term.

Conclusions and Policy Recommendations

This policy research note summarized some key findings from a study on the impact of COVID-19 and associated policies on SMEs along the poultry and fish value chains in Ebonyi State. Our findings reveal that although full lockdown policies were not implemented in Ebonyi State, SMEs in the state were still significantly impacted by disruptions to their operations, particularly their ability to access input and output markets (within and across state borders) and the disruption in their ability to access third party logistics services such as storage and, transportation. While business operations appear to have resumed fully in May and onwards, the share of enterprises in Ebonyi State facing challenges increased over the survey months with challenges moving from those related to logistics and accessing input and output markets to challenges with low demand for their products and high input prices. Unfortunately, despite the rise in reported challenges faced by SMEs, no financial assistance was received from the government or any other source to help cushion the effects of the pandemic.

These results indicate the need for consideration of state inter-dependence and regional activities when policies are being designed and implemented generally, but particularly in response to shocks such as COVID-19. In addition, it is important for policy makers to recognize the interconnected nature of food supply chains

in Nigeria. As observed in Ebonyi State, the activities of midstream actors and lateral supply chain services are key for the smooth operation of farmers and retailers who depend on these nodes for their inputs into their own production and or sales. Finally, these results indicate the importance of proper design and implementation of government support programs to ensure that they reach those enterprises and individuals who need it most.

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