

COVID 19 BUSINESS TRACKER Main Report O







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PREFACE AND ACKNOWLEDGEMENT

This report presents the impact of COVID-19 on Ghanaian businesses, which complements the 2020 quarter two (2) Gross Domestic Product by providing explanations to the contraction within this period. The complementarity engenders the deployment of diverse and targeted social and monetary interventions to affected businesses, especially those that closed permanently with no hope of revival. The shocks caused by the pandemic indicate that Ghanaian businesses are affected through a multiplicity of channels (demand shocks, supply shocks, financial shocks and continued uncertainty) and expect continuing impacts in the future. In the short-run, policies that support firms in managing financial shocks can be expected to be beneficial, including increasing awareness of current schemes. In the longer term, policies that increase customer and business confidence, help re-establish broken supply channels and assist firms adjusting to the new reality (e.g., by leveraging digital technologies) can be expected to help businesses recover from the shock.

The GSS wishes to acknowledge the invaluable contribution of Francis Bright Mensah, Anthony Krakah, Isaac Dadson, Kwamena Leo Arkafra and Patrick Adzovor all from GSS, and Raymond Elikplim Kofinti, Joshua Sebu and Peter Mwinlaaru of the University of Cape Coast for engaging with the data, analysis and report writing. The technical support and dedication of Elwyn Davies, Ayago Esmubancha Wambile, Sarosh Sattar, Tomomi Tanaka and Michael Ehst (all from the World Bank) Kordzo Sedegah, Praise Nutakor and Frederick Mugisha (United Nations Development Programme (UNDP), Ghana) in the process of conceptualization, analytical validation and report writing are very much appreciated. A special appreciation goes to UNDP Ghana and the World Bank for providing both financial and technical support.

Prof. Samuel Kobina Annim (Government Statistician and National Project Director)

FOREWORD

I am delighted for UNDP to provide the foreword to this report on the COVID-19 Business Tracker. This was the first wave of the COVID-19 Business Tracker for Ghana and we hope it will be the first of many.

Businesses, irrespective of whether small, medium or large are central to our lives and to the functioning of national and local governments. We are therefore interested in protecting businesses and supporting them to overcome the challenges brought about by COVID-19 in order to protect jobs, ensure service and goods provision but also to secure revenues to local and national governments.

Across the world, the COVID-19 pandemic has tested and continues to test the resilience of businesses in face of an extended crisis situation and the resulting "new normal". It has created significant disruption, reducing sales and incomes and threatening jobs, livelihoods and even lives. This report appreciates these negative impacts of COVID-19 on businesses while at the same time looking at the opportunities to build back better.

COVID-19 also presents us all, with an opportunity to listen and to learn. Data and analytics are key ingredients in this process of listening and learning. This is one of the cornerstones of our partnership with the Ghana Statistical Service, the World Bank and the more than 4,000 businesses that continue to provide the critical information and evidence. Moving forward and to further waves of the Business Tracker, we encourage others to join for an even broader partnership not just in the collection of the data but in its use as well.

And this is where it is important to recognize that quick wins may well come from the use of the data, where policy choices are informed by this data and the analytics. To just highlight a few that you will find in the report, examples relate to policies aimed at accelerating the adoption of digital technology or incentivizing formalization. And while we can make a case for subsidizing credit, what will be truly transformational will be to significantly reduce the cost of credit.

The COVID-19 pandemic triggered this initiative but 2020 is not just the year of the pandemic, it also sees the establishment of the largest free trade area – the African Continental Free Trade Area (AfCFTA). And in this context, the finding of our joint work have and continue to provide data and analytics that will not only enable businesses to build back better but will allow businesses to leverage opportunities provided by the AfCFTA.

UNDP is looking forward to working with partners on further waves of the COVID-19 Business Tracker and based on the resulting findings, we are committed to continue our collaboration with business leaders, government and partners to identify feasible policy options and investment opportunities for businesses at national and local levels.

I thank you very much for taking the interest in this work. Enjoy reading and more importantly let the results shape the actions.

Silke Hollander UNDP Deputy Resident Representative

FOREWORD

The COVID-19 pandemic has been a shock that has been unprecedented in recent times, with considerable impacts on firms and workers across the world. Businesses are not only affected by public health measures needed to curb the spread of the virus, but also face reductions in demand, disruptions in supply, difficulties in accessing financing and prolonged uncertainty, often at the same time.

The Ghana Statistical Service Business Tracker Survey (BTS) provides crucial insights in the ways that firms in Ghana are affected. It provides a sobering picture, with many firms having to close temporarily and many workers that experienced job losses or reductions in hours or pay. At the same time, it shows some positive adjustments by firms in how they operate, including the use of mobile money and other digital solutions.

This GSS report presents detailed results from the first round of the BTS, which was conducted just after partial lockdown measures were lifted. Better understanding how firms have been impacted at this early stage is important, since follow-up survey efforts have shown that despite some improvements, many of the impacts on businesses have lasted beyond the short term.

The situation in Ghana is not unique. Firm surveys that the World Bank has conducted as part of the Business Pulse Surveys (BPS) efforts - now conducted in more than 50 countries - show similar deep impacts on firms and their workers. This raises many challenges for policymakers in both the short and the long term. The results from the surveys show that despite government support programs, the needs of firms are high and many are still unmet.

The World Bank Group stands ready to support Ghana in the path to economic recovery. The World Bank Group has been working closely with the Government of Ghana, other development partners and the private sector to mitigate negative impacts, but also to create pathways for long-term recovery and economic growth. This includes providing loans to help in Ghana with its emergency preparedness and response funding to COVID-19, as well as longer-term investments to boost access to finance, promote firm growth and support digitalization, jobs and skills.

The data collected by the GSS as part of this survey provides crucial insights on the challenges that firms face and how effective policy actions can assist firms throughout this crisis. We would like to thank the GSS for the insightful analyses in this report as well as our close collaboration with GSS and UNDP in its production.

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Pierre Laporte
Country Director for Ghana, Liberia and Sierra Leone
World Bank
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LIST OF ABBREVIATIONS

- CATI Computer Assisted Telephone Interview
- CAP: Coronavirus Alleviation Programme
- GLSS: Ghana Living Standards Survey
- GSS: Ghana Statistical Service
- IBES: Industrial Business Establishment Survey
- NBSSI: National Board for Small Scale Industries
- SMEs: Small and Medium Enterprises
- UNDP: United Nations Development Programme

EXECUTIVE SUMMARY

The shock caused by the COVID-19 pandemic has had considerable impacts on Ghanaian firms. Collaborating with the United Nations Development Programme (UNDP) and the World Bank, the Ghana Statistical Service's Ghana Business Tracker aims at providing critical information to help the Government of Ghana, development partners and other organizations monitor the effects of the pandemic on businesses. The survey interviewed 4311 firms and was conducted between May 26 and June 17, 2020.

The results show that 35.7 percent of business establishments had to close during the partial lockdown, with 16.1 percent continuing to be closed after the easing of the lockdown, with firms in the accommodation and food sector being the most affected (24.0 percent had to close).

On employment, 46.1 percent of business establishments report that they reduced wages for 25.7 percent of the workforce (an estimated 770,124 workers). Only 4.0 percent of firms indicate that they have laid off workers, corresponding to 1.4 percent of the workforce (an estimated 41,952 workers).

The adoption of digital solutions shows that more than a third of firms (37.5 percent) started or increased their use of mobile money, and about a tenth of firms (9.0 percent) started or increased their use of internet to do business.

Government intervention in the form of assistance shows that only 3.5 percent of firms report that they received government assistance, with "not being aware" of government programs indicated as the most common reason.¹

Regarding business confidence, firms report substantial uncertainty in future sales and employment, with average expectations of declines of 24 percent of sales and 15 percent of employment in the worst-case scenario.

The findings indicate that Ghanaian businesses are affected through a multiplicity of channels (demand shocks, supply shocks, financial shocks and continued uncertainty) and expect continuing impacts in the future. In the short-run, policies that support firms in managing financial shocks can be expected to be beneficial, including increasing awareness of current schemes. In the longer term, policies that increase customer and business confidence, help re-establish broken supply channels and assist firms adjusting to the new reality (e.g., by leveraging digital technologies) can be expected to help businesses recover from the shock.

¹ The survey does not reflect support received from the government's Coronavirus Alleviation Programme (CAP), as this programme was still in its initial launching stage at the time of the survey.

CHAPTER ONE

INTRODUCTION

1.1. Background

The spread of COVID-19 and measures to stop the spread have left individuals and families, small, medium, and large businesses counting their losses from which they will have to recover. At the same time, COVID-19 has also opened opportunities to speed up transformations in the use of digital technology (e.g., mobile money, online learning, and online business operations). It could also be an opportunity for businesses to change their product offerings in light of new needs formed by the pandemic COVID-19 is impacting firms through a multitude of channels: public health measures, decreased demand, disruptions in supply chains, difficulties in accessing finance as well as prolonged uncertainty.

This study report findings from a survey designed to identify how firms are affected by these channels. The tracking is for small, medium, and large businesses, both at regional and national levels. It tracked the economic and societal impacts of COVID-19 intending to inform choices of Government, its development partners, and the private sector.

The Business Tracker Survey is programmed to be conducted for six waves, paneled, and will focus on the impacts of COVID-19 on private enterprises. For many, lockdown and decreased demand means a decrease in income, across the spectrum of firms, including household enterprises as well as micro, small, and medium scale enterprises (SMEs). It is in line with this that the Government has been working to roll out support programs for small, medium, and large establishments that were severely affected by the coronavirus pandemic.

1.2. Objectives of the Survey

The overall objective is to track the socioeconomic impacts, measures to mitigate this impact, and efforts to build better recovery for the people of Ghana. Specifically, the study will:

- Ascertain the number and type of businesses that have closed down as a result of COVID-19;
- Identify the mitigating measures that businesses have put in place due to the impact of COVID-19;
- Find out the modus operandi initiated by businesses due to COVID-19;
- Measure the impact on turnover of businesses as a result of the pandemic;
- Measure the impact on inputs/raw materials of businesses as a result of the pandemic;
- Track the number and nature of job losses as a result of COVID-19;
- Measure the impact on cross-border economic activities due to COVID-19;
- Measure the financial loss of business due to COVID-19;
- Observe the mitigating measures businesses put in place at the post-COVID-19.

1.3. Survey instrument

In order to achieve the set objectives, detailed information was collected on critical elements of socioeconomic characteristics of the firms using an electronic questionnaire:

- Identification and classification;
- Impact on business opening or closing;
- Impact on labour force;
- Impact on business operations;
- Impact on business turnover;
- Expectations of businesses;
- Mitigating measures; and
- Policies.

1.4. Survey design

The Business Tracker Survey (BTS) is part of the global Business Pulse Survey (BPS) initiative of the World Bank, surveying the impact of COVID-19 on the private sector in more than 40 countries. The goal of the Ghana Business Tracker Survey was to conduct a high-frequency panel phone interview of 5,000 enterprises through Computer Assisted Telephone Interviews (CATI) system every month for six months. Electronic questionnaires following the specifications outlined by the World Bank, UNDP and GSS team was developed, pretested, and validated before the start of fieldwork.

The survey adopted a two-stage stratified sampling with replacement. Non-household businesses were selected from the Integrated Business Establishment Survey (IBES), while household businesses were selected from the Ghana Living Standard Survey Round 7 (GLSS7). Since the IBES was conducted in 2013 and did not include firms founded after this date, other young firms (mostly micro, small and medium firms) were sampled from the National Board for Small Scale Industries (NBSSI) Database. The need to examine the effects of the pandemic on household businesses, and newly born businesses since the IBES was over 6-years old, spearheaded the need to include the GLSS-7 and the NBSSI database as other primary database sources for the sampling.

The stratification variables include the 16 regions, the size of firms categorized by micro, small, medium, and large-size firms and sectors classified into manufacturing, other industry and agriculture, wholesale and retail trade, food and accommodation, and other services. These stratification variables were used to stratify the firms in the first stage. Subsequently, the firms were selected from each stratum using a simple random sampling method. The probabilities for the selection are estimated, and the weights are also estimated accordingly.

During the survey, firms were replaced if the non-response within the stratum exceeded 50 percent, and all the replaced firms assumed the initial stratum weight. The final weights were adjusted to the population weight after the fieldwork was closed. The distribution of the initial and effective sample by regions are presented in the table below.

Dagion	Initial Samp	ole	Final Samp	Desponse rate	
Region	Number of Firms	Percent	Number of Firms	Percent	Response rate
Ahafo	180	3.2	103	2.4	57.2
Ashanti	611	10.8	522	12.1	85.4
Bono	202	3.6	154	3.6	76.2
Bono East	239	4.2	142	3.3	59.4
Central	404	7.1	403	9.3	99.8
Eastern	426	7.5	410	9.5	96.2
Greater Accra	1060	18.7	685	15.9	64.6
North East	161	2.8	66	1.5	41.0
Northern	330	5.8	294	6.8	89.1
Oti	206	3.6	95	2.2	46.1
Savannah	144	2.5	48	1.1	33.3
Upper East	330	5.8	228	5.3	69.1
Upper West	340	6	278	6.4	81.8
Volta	321	5.7	316	7.3	98.4
Western	432	7.6	370	8.6	85.6
Western North	289	5.1	197	4.6	68.2
Total	5,675	100	4,311	100	76.0

Table 1.1: Regional distribution of the sample and their response rates

1.5. Training and fieldwork

Personnel recruited for training had a minimum qualification of Higher National Diploma. The main fieldwork training took place virtually over five days, starting from 19th to May 23, 2020. A total of 60 field officers participated in the training. All participants were trained in interviewing techniques and on the concepts and definitions pertaining to the survey and the Business Tracker Survey (BTS) questionnaires' contents. The style used for the training included class presentations, mock interviews and role-plays, quizzes and tests, and field practice using the electronic questionnaire. Trainees selected as editors, auditors, and supervisors were given additional training on conducting data quality checks, supervising their team members' fieldwork, and editing their questionnaires. At the end of the training session, qualified trainees were selected based on their performance in training.

Five teams were constituted, each comprised of an auditor and eight interviewers. Each team was placed under the supervision of an Editor and Supervisor. The main fieldwork was over nineteen days commencing on May 26, 2020 and ending on June 16, 2020. The CATI system was employed in the collection of data. Given the rapidly evolving situation around COVID-19 and the restrictions of movement and assembly of people imposed by the Government, field staff (interviewers, auditors, editors, and supervisors) had the flexibility to work from their home.

The following equipment and infrastructure were provided to ensure smooth data collection:

i. tablets with a sound Computer Assisted Telephone Interviews (CATI) data entry software;

- ii. a workspace for each interviewer away from other interviewers (i.e., at home);
- iii. reliable internet connection for every interviewer in their workspace;
- iv. reliable phones with a headset with sufficient credit; and
- v. power banks in case of power interruptions.

In order to ensure data quality, field monitoring exercises were undertaken at various levels by the Project Implementation Team and Technical Advisory Committee (TAC) members. The Regional Statisticians also served as regional monitors. The field monitors called field staff randomly to observe field data collection, listen in interviews, and review completed questionnaires to ensure consistency of responses.

1.6. Editing, coding and data processing

The application system for the collection of data was developed in SurveyCTO software. All electronic data files for the BTS were transferred remotely from the field (data collection locations) to a SurveyCTO server dedicated to the survey. Various data protection measures were employed to ensure the confidentiality of respondents' identification details and security of the data. Data editing, cleaning, coding, and processing all started soon after data collected from the field were transferred to Server. The editing and cleaning included structure and consistency checks to ensure completeness of work in the field. It also included the identification of outliers. Any inconsistencies identified in the completed questionnaire from an interviewer were documented by the editor and reported back to the interviewer through the auditor. Secondary editing, which required resolution of computer-identified inconsistencies, was also undertaken.

CHAPTER TWO

IMPACT ON BUSINESS OPERATIONS AND OUTPUTS

2.1. Introduction

Following the global spread of COVID-19 and detection of the first cases in Ghana, a partial lockdown was imposed, restricting economic activities in Greater Accra and Greater Kumasi regions. The partial lockdown resulted in many business closures, influenced firms' labour force situation, and registered adverse effects on business turnovers. Other challenges were difficulty in sourcing inputs, limited supply of financial services, and declines in cashflows. These impacts are captured under the chapter.

2.2. Impact on the operational status of firms

The arrival of COVID-19 in Ghana and the subsequent partial lockdown imposed influenced businesses' operational status across the country. The operational status of firms was affected in different degrees. Whereas some businesses were fully opened, others were only partially opened. On the other end, some businesses had to close down temporarily or even permanently. The changes in firms' operational status vary across the type of firm, sector of economic activity, and firm size.

The results show that during the partial lockdown imposed on two major cities in Ghana, more than one-third (35.7%) of business establishments were closed down (partially or permanently) compared to almost a quarter (24.3%) of household firms. Beyond the lockdown, in May/June, the proportion of closed business establishments decreased by 19.5 percentage points to 16.2 percent. Similarly, the proportion of household firms that were closed declined by 9.7 percentage points during the same period to 14.2 percent. These distributions are depicted in Figure 2.1.



Figure 2.1: Operational status of firms by type of establishment

Concerning the operational status of firms across their sectors of engagement, 41 percent of businesses in the Trade sector was fully opened while almost the same proportion (39%) of firms in the Agriculture & other industries and Accommodation/Food were fully opened as depicted in Figure 2.2. Manufacturing sector reported 37 percent of business establishment fully opened while Other Service had 33 percent of firms fully opened. Comparatively, business establishments in the Agriculture & other industries sector recorded the highest level of partially opened firms (37%) while the Manufacturing sector reported the lowest with 23 percent of firms partially opened. Firms closure (temporarily and permanently closed) on the other hand, firms in the Manufacturing sector was most affected, with 40 percent of them being closed, followed by firms in the Other Services sectors (39%). The figure largely indicates that firms in the Agriculture & Other Industries sector had the lowest proportion of firms that were closed (24%).



Figure 2.2: Operating status during lockdown by sector

Figure 2.3 shows the pattern of firm closure across sub-sector analyses during lockdown and the post-lockdown period (May/June). The sub-sectors with the highest rates of closures during the lockdown period were Education (65.5%), Financial service or real estate providers (47.0%), Transport (46.4%), Manufacturing (39.8%), and Other service providers (38.3%). The sub-sector with the least incidence of firm closure was those related to primary or agriculture activities (19.7%). Beyond the lockdown (May/June), more than 3 out of five (63.0%) firms in the Education sub-sector were still faced with the highest incidence of firm closure. Retail and wholesale related firms reported the lowest share of closure in May/June (9.3%).



The closure of firms also varied across the size of firms. A higher proportion of the micro (37.8%) and small firms (32.5%) closed down during the lockdown compared to medium (24.7%) and large firms (11.7%). A similar pattern pertained after the lockdown period with the micro and small firms being the hardest hit: more than a quarter of micro and small firms (27.7%) are still closed after the lockdown compared to less than 10 percent of medium and large firms in the same situation (Figure 2.4).



Figure 2.4: Operating status during and after lockdown by size

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Firms across the administrative regions experienced changes in their operational status due to the pandemic. Table 2.1 shows the incidence of closure during the partial lockdown and after the lockdown (May/June). The regions with the highest proportion of firm operating at full scale during the lockdown (which mainly affected Kumasi and Greater Accra) were Western (63.2%), Northern (63.0%), Oti (60.5%), Bono (59.3%), Bono East (55.4%) and Eastern (52.9%) regions. After the lifting of the lockdown (i.e. May and June, 2020), large proportions of businesses which were hitherto closed were opened for operations. The regions with the highest proportions of firms opening fully in descending order were Upper East (95.8%), Ahafo (95.3%), Oti (93.1%), Bono East (89.9%), Savannah (89.7%), Bono (89.0%), Eastern (87.4%) and Western (84.7%). The different degrees of the operation of firms across the sixteen administrative regions are shown in Table 2.1.

	Open Partially open		Tempora	ry closed	Permanently closed			
Region	Lockdown	Maty/June	Lockdown	May/June	Lockdown	May/June	Lockdown	May/June
Ahafo	54.7	95.3	28.2	2.7	10.5	2.0	6.6	0.0
Ashanti	19.6	80.8	25.0	6.5	48.1	12.7	7.3	0.0
Bono	59.3	89.0	21.3	10.4	6.3	0.6	13.0	0.0
Bono East	55.4	89.9	26.9	3.1	16.7	5.5	0.9	1.5
Central	44.2	80.8	24.6	10.3	26.3	8.6	4.9	0.3
Eastern	52.9	87.4	19.8	4.6	23.7	8.0	3.6	0.0
Greater Accra	11.7	71.1	36.8	20.7	46.4	8.1	5.1	0.1
North East	47.5	86.2	42.6	10.0	5.7	3.7	4.2	0.0
Northern	63.0	89.5	24.1	10.2	8.1	0.3	4.7	0.0
Oti	60.5	93.1	21.5	5.6	15.3	1.2	2.8	0.1
Savannah	22.6	89.7	30.3	4.8	43.7	5.5	3.3	0.0
Upper East	37.0	95.8	22.3	3.5	26.7	0.6	14.1	0.1
Upper West	53.5	72.2	24.5	21.2	18.7	6.5	3.3	0.1
Volta	45.4	79.1	29.4	13.3	18.8	7.6	6.5	0.0
Western	63.2	84.7	23.9	14.6	9.3	0.7	3.7	0.0
Western North	51.4	91.7	29.6	0.2	18.8	8.1	0.2	0.0

Table 2.1: Regional incidence of firm closure

Figure 2.5 presents the operating status of firms by formality during the lockdown. 47 percent of formal firms were fully opened during the lockdown compared with 37 percent of informal firms. Moreover, 31 percent of formal firms were temporary opened while 29 percent of informal were temporary opened. More informal firms (34%) were temporary closed than formal firms (22%).



Figure 2.5: Operating status during lockdown by formality

More non-exporting firms (45%) were fully opened during the lockdown than the exporting firms (27%) as shown in Figure 2.6. The firms' temporary opening was more prominent in exporting firms (67%) than non-exporting firms (29%). Regarding temporary closure of firms, 7 percent of exporting firms were affected compared with 26 percent of non-exporting firms.





2.3. Impact on Labour Force

Labour market issues have become one primary concern for the Government of Ghana to address unemployment and its attendant problems. The Ghana Living Standards Survey Round Seven (GLSS 7) conducted in 2016/2017 estimates Ghana's unemployment rate to be 8.4 percent. Several policies have been promulgated by successive governments to assist reduce unemployment and vulnerability. The COVID-19 pandemic has brought about further impacts in the labour market by causing layoffs, reducing labour hours, and cutting down wages. These effects are at the backdrop of the lockdown and the consequent variations in businesses' operational status. These variations in the operational status have implications for employment and the labour force situation of businesses.

Employment situations differ by firm sizes amidst the global pandemic. 14 percent of large firms compared to only one percent of micro firms report that they hired workers for their operations during the pandemic. Medium-size firms were more likely to lay off workers (fired workers, 8%) compared to the other type of firms. Lay off of workers was least seen among micro-size firms (fired workers, 2%). As far as wages are concerned, non-large firms were more likely to reduce the wages of their workers as a mitigation measure during the pandemic (49% of micro firms, 47% of micro firms and 43% of small firms reported reducing worker's wages). Reduction in the number of hours worked was mainly undertaken within medium size firms (46%).



Figure 2.7: Employment situation by the size of the firm

The greatest impacts are seen within medium-sized firms. That is, wages reduction, firing of workers, leave of absence with or without pay and reducing of hours worked were more pronounced in the medium sizes firms than the other firm.

The impact on employment also differ across establishment types, as depicted in Figure 2.8. Reduction in wages was predominant in business establishments (25.7% of employees). 22.8 percent of employees of household firms and 23.8 percent of employees of young SMEs had their wages reduced. The data also shows that both business establishments and young SMEs reduced the working hours of 23 percent of their employees compared to household firms, which reduced 11.6 percent of their employees' working hours.



Figure 2.8: Effect of COVID-19 on employees by firm type

The effect of the pandemic on employees showed that employees in Bono region were the most affected (Table 2.2). About 45 percent and 43 percent of employees in the Bono region had a reduction in their wages and working hours respectively. Employees in the Upper East region were affected the least in these respects (Reduced wages, 8%; reduced hours worked, 7.7%). The Oti region recorded the highest percentage of employees who were fired (10.3%) followed by employees in Bono East (5.1%) (Table 2.3). The only region which did not record any firing of employees is the North East. This could largely be attributed to the nature of businesses in the region in terms of ownership type and the likelihood of having more establishments being

household non-farm enterprises. Some regions also took steps to hiring more workers despite the pandemic probably due to the activities they were involved in such as the production of face masks, hand sanitizers, sale of Veronica buckets and so on. In the Volta region, an additional 2.3 percent of workers were hired. Bono, Greater Accra, Savannah, Central and Upper West regions are the top five regions with a high proportion of employees' who had their wages reduced.

Region	Hired	Fired	Granted	Granted	Reduced	Reduced	In permanently
	workers	workers	leave of	leave of	wages	hours	closed
			absence	absence		worked	businesses
				with pay			
Ahafo	0.4	0.7	3.1	2.3	25.5	20.5	0.0
Ashanti	1.7	0.6	10.7	1.9	19.7	16.6	0.0
Bono	0.9	4.1	13.6	11.7	44.8	43.3	0.0
Bono East	0.0	5.1	15.1	5.4	16.0	16.9	1.8
Central	1.0	0.5	11.8	2.2	32.1	29.2	0.0
Eastern	2.0	0.4	4.7	5.2	13.4	10.5	0.0
Greater Accra	1.2	2.8	10.6	8.2	39.4	27.8	0.0
North East	0.0	0.0	17.5	0.0	22.5	19.0	0.0
Northern	0.1	1.0	12.9	13.9	19.3	15.5	0.0
Oti	0.7	10.3	2.8	0.0	27.4	33.7	0.0
Savannah	0.0	2.1	8.6	0.6	38.8	30.0	0.0
Upper East	1.1	0.7	4.5	3.4	8.0	7.7	0.1
Upper West	0.7	0.2	9.4	3.5	29.6	32.1	0.1
Volta	2.3	1.0	4.1	6.5	16.1	14.5	0.0
Western	0.0	0.8	7.9	12.4	23.9	33.3	0.0
Western North	0.0	1.0	6.9	12.5	16.3	8.8	0.0

Table 2.2: Effect of COVID-19 on employees by region

In this analysis, businesses are regarded as formal if they are registered with the Registrar Generals Department and also keep some form of accounts, otherwise, they are informal. More than a third (37.1%) of employees in the informal establishments had their wages reduced compared to 26.5 percent of employees in the formal establishments who had a reduction in their wages. The reduction in employees' hours worked was more pronounced in the informal establishments (34.0%) than it was in the formal establishments (23.8%). More workers were fired in informal establishments (2.1% of the total workforce) than formal establishments (1.4% of the total workforce).



Figure 2.9: Effect of COVID-19 on employees by formality

Non-exporting firms saw bigger impacts on their employment in the areas of reduced wages, reduced hours worked, leave of absence without pay, and leave of absence with pay. The proportion of employees who had their wages reduced in non-exporting establishments is 26.4 percent, compared to 5.4 percent of employees in exporting firms. More employees in non-exporting establishments also experienced reduced hours of work (23.9%) than those in exporting establishments (3.8%). Non-exporting establishments have a net decrease in the number of employees by 0.3 percent (i.e., hired workers, 1.1%; fired workers, 1.4%) while exporting firms have a net increase in their firm size by 0.9 percent (i.e., hired workers, 1.2%; fired workers, 0.3%) Figure 2.10).



Figure 2.10: Effect of COVID-19 on employees by exporting firm

Figure 2.11 shows that most employees in establishments that are not into imports had reduced wages (28.7% of employees) than employees in establishments that are into imports (24.8% of employees). A little more than a quarter of employees (26.1%) in non-importing establishments had reduced hours of work while about a fifth (19.3%) of importing establishments had reduced hours of work. Importing firms (2.7%) hired were more likely to high new workers than exporting firms (1.1%).



Figure 2.11: Effect of COVID-19 on employees by importing firm

The employment situation of firms varies across the 16 administrative regions of the country. About 29.2 percent of businesses in the Ahafo region report that they reduced wages for 23.4 percent of the workforce. Only 0.5 percent of the firms indicated that they hired workers. For firms within the Bono region, 54.0 percent (being the highest) report that they reduced wages for their workforce with 1.0 percent of them reporting that they have hired workers. Compared with other regions that reported no cases of their businesses permanently closed (except for upper east and upper west regions for which only 0.1 per cent each), 2.3 percent of the businesses in the Bono East region indicate that their business operations are permanently closed. In the Volta region, 2.5 per cent (being the highest) of the firms indicate they have hired workers but Bono East, North East, Savannah, western and western North Regions reports not hiring workers. One in five firms (19.7%) and 16.6 percent of the firms are from Bono East and northern regions respectively granted a leave of absence with or without pay to their employees.

Region	Hired	Fired	Granted	Granted	Reduced	Reduced	In permanently
	workers	workers	leave of	leave of	wages	hours	closed
			absence	absence		worked	businesses
				with pay			
Ahafo	0.5	0.8	3.5	2.6	29.2	23.4	0.0
Ashanti	2.0	0.7	12.8	2.3	23.6	20.0	0.0
Bono	1.0	5.0	16.4	14.1	54.0	52.1	0.0
Bono East	0.0	6.6	19.7	7.0	20.9	22.1	2.3
Central	1.2	0.5	13.6	2.6	37.2	33.8	0.0
Eastern	2.1	0.5	5.1	5.7	14.5	11.4	0.0
Greater Accra	1.2	3.0	11.5	8.9	42.6	30.0	0.0
North East	0.0	0.0	18.4	0.0	23.7	20.0	0.0
Northern	0.1	1.2	15.5	16.6	23.2	18.6	0.0
Oti	0.8	11.9	3.2	0.0	31.6	39.0	0.0
Savannah	0.0	2.2	9.1	0.6	41.0	31.7	0.0
Upper East	1.2	0.7	4.8	3.6	8.6	8.3	0.1
Upper West	0.8	0.2	10.7	4.0	33.8	36.7	0.1
Volta	2.5	1.0	4.3	6.9	17.0	15.3	0.0
Western	0.0	0.8	8.1	12.8	24.7	34.3	0.0
Western North	0.0	1.1	7.7	13.9	18.2	9.9	0.0

Table 2.3: Employment situation by region

The effect of COVID-19 on employees is analysed across five (5) main sectors of the economy: Manufacturing, Agriculture & Other Industries, Trade, Accommodation/Food, and Other Services (Table 2.4). Comparatively, firms in the accommodation and food service activities fired a higher proportion of their workers (5%). The sector receives revenue from both domestic and international tourists, but the closure of borders prevented the massive inflow of tourists. It also experienced low patronage from domestic tourists due to the ban on social activities such as funerals, weddings, and the like, causing movement of persons from one geographical area to the other.

Table 2.4: Effect of COVID-19 on employees by sector

	Hired workers	Fired workers	Granted leave of absence	Granted leave of absence with pay	Reduced wages	Reduced hours worked	In permanently closed businesses
Manufacturing	1.1	1.0	6.5	3.4	14.8	20.7	0.0
Agric & Other Industries	1.6	1.0	6.7	5.5	11.7	9.2	0.2
Trade	0.4	1.2	12.2	3.0	28.0	26.7	0.0
Accommodation / Food	0.4	5.0	8.8	10.7	30.5	23.2	0.0
Other Services	1.2	1.3	10.4	10.2	36.3	29.2	0.0

About 36.3 percent of employees in the other services sector had a reduction in their wages compared to the sectors. The two major impacts of the pandemic on employees are reduced wages

and reduced hours of work. Accommodation and food services and other services activities were the most affected sectors in this regard.

2.4. Impact on Business Turnover

Sales of firms were also affected due to the global pandemic. More than nine in ten (91%) of firms reported a decrease in sales, with only five percent reporting an increase in sales (Figure 2.12). All types of firms were impacted, decreases can be found across establishment types, sectors of engagement, size of firm, and region of operation of firms



Figure 2.12: Change in sales by all firms

In Figure 2.13, household firms reported the largest fall in sales (96.0%) followed by establishments (91.0%) compared to the same period in 2019. While establishments reported a 5.0 percent increase in sales over 2019, the same cannot be said of household establishments whose sales increased by 2.0 percent.





Reduction in sales ranges from 77 percent within agriculture & other industries to 95 percent within Trade sub-sector. Agriculture and other industries were more likely to see increases in sales compared to the same period in 2019, with 14.5 percent of firms reporting an increase.



Across size, large firms report a 55 percent increase in sales compared to a 45 percent decrease in sales. However, micro, small and medium firms experienced about 90 percent decrease in their sales.



Firms in the Savannah region saw the highest increase in sales (13%) followed by firms within the Western North region (9%). There was not much variations in the reduction in sales of firms within the regions. The highest reduction in sales was reported in Bono East region (Table 2.5).

Region	Increase	Remain the same	Decrease
Ahafo	7.6	0.3	92.1
Ashanti	4.6	3.6	91.8
Bono	2.4	3.0	94.6
Bono East	0.1	0.2	99.7
Central	7.9	4.9	87.2
Eastern	7.6	1.1	91.3
Greater Accra	3.1	4.4	92.5
North East	0.1	7.5	92.3
Northern	2.9	2.0	95.1
Oti	0.6	8.9	90.6
Savannah	13.4	0.0	86.6
Upper East	5.1	0.4	94.5
Upper West	2.9	1.5	95.7
Volta	4.4	8.8	86.8
Western	7.9	2.7	89.4
Western North	9.2	0.2	90.6

Table 2.5: Change in sales by region

2.5. Supply Shocks and Financial Impacts

Supply shocks as well as demand shocks – which have been discussed in the previous section – are presented in Table 2.6. The supply shocks relate to the limited supply of inputs, provision of financial services, and cash flow availability that firms experienced.

More than half of firms (51.4%) report difficulties in sourcing inputs (Table 2.6). The most affected sectors were accommodation and food (58.9%) and wholesale and retail trade sectors (53.7%). Of the firms reporting difficulties, 84.6 percent of firms report that this was due to products not being available, and 42.3 percent of firms report that the costs of inputs have increased. Firms relying on imports have been particularly affected. 75.1 percent of them indicate that they had difficulties finding supplies, and 85.4 percent of importing firms report that imports decreased.

Faced with declining sales while still having to meet other obligations, 75.6 percent of business establishments report a deterioration in their cash flow, and 25.4 percent of firms report decreased finance access. Firms in retail and wholesale trade (82.7%) and manufacturing (78.2%) sectors were most affected by cash flow problems. About 95.6 percent of exporting firms report cash flow problems. Firms also indicate that financial institutions have tightened the terms of loans. Of the firms with a loan or credit line (16.5%), 16.0 percent reports that their financial institutions tightened the terms of the loans.

	Facing decrease in sales	Average decrease in sales	Facing difficulties in finding inputs	Reporting cash flow problems	Facing decreased access to finance
Business establishments*	91.4	60.6	51.4	75.6	25.4
Household firms	95.7	66.2	51.2	68.1	29.3
Young SMEs**	89.9	67.1	48.4	72.1	24.7
Manufacturing	92.7	65.3	47.6	78.2	17.2
Agric & Other Industries	77.2	43.8	52.2	73.9	29.6
Trade	93.7	56.6	53.7	82.7	26.2
Accommodation / Food	91	56.7	58.9	67.8	26.9
Other Services	91.9	65.3	49.7	71.4	27.1
Micro (1-5)	92.2	60.9	51.1	75.2	24.7
Small (6-30)	89.7	60.8	52.3	77.8	26.6
Medium (31-100)	89.9	62.1	53.7	69.6	34.6
Large (100+)	45.1	16	42.7	47	21.9
Young (0-4)	86.5	52	58	73.5	27.1
Maturing (5-14)	91.2	60.9	51.9	75	23.9
Established (15+)	92.8	62.1	49.2	76.9	27
Informal firms	90	59.2	51.5	78.3	23.9
Exporters	96.1	68.5	46.5	95.9	11.9

Table 2.6: Channels through which firms are affected

* Based on the 2013 IBES sample. ** Based on SMEs from NBSSI client lists founded after 2013.

CHAPTER THREE

BUSINESS OUTLOOK AND EXPECTATION

3.1. Introduction

Business expectations are primarily a function of the current business environment and knowledge of potential underlying conditions affecting current and future business environments. Typically, it reveals the confidence in future business successes or failures (i.e., future business cycles). Mostly, businesses and consumers' emotional mindsets underpin the fluctuating confidence or pessimism of investors and businesses. An entity's business outlook usually directs the current levels of investment requirements in anticipation of ideal future returns that will compensate for the investment.

Even though lockdown measures have been relaxed, firms continue to report uncertainty. The survey asked firms for their expectations of what they considered most likely and what a more pessimistic and optimistic scenario could look like. Largely, firms report a high degree of uncertainty in the expectations of firms. Typically, uncertainty arising from a pandemic provides the channel that affects firms when there is a lockdown, and even after the economy re-opens, as this eventually results in a lower desire for risk and investments.

3.2. The overall business expectation about sales and employment

The study measures business outlook concerning firms' expectations in future growths in sales and employment for the next six months. The survey adopts a methodology developed by the Atlanta Federal Reserve Bank (see Altig et al. 2020) to measure expectations and uncertainty, by asking firms for their projections on sales and employment changes when considering a pessimistic, most likely, or optimistic scenario in the business environment.

Notwithstanding the relaxation of the lockdown measures since the emergence of the COVID-19 pandemic in the country, firms continue to report uncertainties in sales and employment growth in the next six months. In the most pessimistic scenario, as shown in Figures 3.1 and 3.2, firms anticipate a 23.5 percent decline in sales and a 14.8 percent decline in employment over the next six months, compared to the same period in 2019. In what firms report as the most likely scenario; however, firms indicate that they expect sales and employment to decrease by 0.8 percent and 5.5 percent, respectively, over the next six months. In the most optimistic scenario, firms reported an expected increase in sales by 25.3 percent and employment by 4.3 percent.

Nonetheless, the degree (39%) of uncertainty among businesses considering the probability of a pessimistic scenario materializing is revealing. Relatively, businesses report that the probability of an optimistic scenario of growth in employment and sales materializing is 29 percent. This

notwithstanding, the wide range between the optimistic and pessimistic scenarios indicates that firms are unsure of their expectations of sales and employment developments in the future business environment.



Figure 3.1: Expectations about sales

Figure 3.2: Expectations about employment

3.3. Sectoral expectation in future sales and employment

There are variations in the levels of business confidence across the six sectors of the economy. In the pessimistic scenario, firms in the other services sector report that sales will decline by 46.5% in the next six months. Also, firms in the accommodation (35.9%), trade (32.2%), manufacturing (26.3%), and agricultural and other industries (1%) expect sales to decrease by 36 percent, 32.2 percent, 26.3 percent and one (1) percent respectively. Figure 3.3 shows that in the most likely scenario, firms in the other services, accommodation, and trade perceive a dire future expectation concerning sales, while those in manufacturing and agriculture and other industries sectors report having a positive outlook. Firms in the manufacturing, as well as agricultural and other industries, present a more positive outlook in optimistic and most likely scenarios than all other economic sectors.

The expectation of employment by firms is presented in Figure 3.3. Apart from agriculture and other industry sectors, firms in all sectors indicate a gloomy outlook for employment under all the scenarios. In a pessimistic scenario, manufacturing firms report a decline in employment for the next six months by 35.9 percent, followed by firms in the trade sector (32.2%) and those in the other service (26.3%) sectors. In the most likely scenario, the pattern is similar, except for the differences in levels of declines (Figure 3.3). In an optimistic scenario, manufacturing firms report an expected decline in employment of 15.3 percent, with firms in the trade sector reporting a decline by 12.7 percent and the accommodation and food sector, four percent.



Firms in the agriculture and other industry sectors were generally positive concerning employment expectation with 11.8 percent, 14.9 percent, and 23.4 percent under pessimistic, more likely, and optimistic scenarios respectively (Figure 3.4).

Figure 3.4: Expectations about employment



3.4. The Regional expectation in future sales and employment

There are extreme variations in expectations across regions, even under the same scenario. For instance, under the pessimistic scenario, while firms in the Ashanti region expressed a decline in sales by 62.2 percent, for the next six months, those in the Greater Accra region report that they expect sales to decline by just 17.1 percent. Table 3.1 shows that, in the case of an optimistic scenario, firms in the Ashanti region report expected positive sales outturn by 40.8 percent while firms in the Greater Accra region express an expected positive outturn of sales by only 19.6 percent.

The pattern concerning firms' expectation on employment in the next foreseeable six months was similar to sales, with extreme variations in the probabilities across regions. However, considering firm expectations under the optimistic scenario alone within the two partial lockdown regions, while firms in the Ashanti region express an expected positive outturn in the employment of about 22.6 percent, those in the Greater Accra region reports an expected decline in employment by about 5.9 percent. It is revealing that even firms within regions without a partial lockdown zone reported expected decline in sales and employment in the foreseeable six months. This could plausibly be as a result of the pass-through effect of the partial lockdown in the Ashanti and the Greater Accra regions (Table 3.1).

		Sales			Employment	
Region	Pessimistic	Regular	Optimistic	Pessimistic	Regular	Optimistic
Ahafo	-31.3	-0.8	79.0	-13.8	-4.7	8.3
Ashanti	-62.2	-28.7	40.8	-31.4	-7.8	22.6
Bono	-69.3	-67.0	-65.5	-21.6	-20.8	-18.7
Bono East	-26.2	-9.0	26.6	-2.2	6.3	58.1
Central	-55.0	-9.5	-7.3	-27.3	-9.1	-8.3
Eastern	0.3	29.0	64.3	-13.6	-8.4	-7.9
Greater Accra	-17.1	1.2	19.6	-24.8	-17.6	-5.9
North East						
Northern	-49.8	-38.2	-37.5	-70.4	-58.8	-50.4
Oti						
Savannah	50.0	70.0	80.0	0.0	4.0	14.9
Upper East	-18.2	17.4	31.3	9.1	13.6	40.9
Upper West	-2.7	1.9	35.7	12.0	13.2	17.9
Volta	21.3	28.6	28.8	33.4	37.7	47.9
Western	-33.5	-23.2	-14.8	-36.5	-34.0	-33.4
Western North	-43.0	-43.0	-43.0	-14.3	-14.3	-14.3

Table 3.1: Expectations about sales and employment by region

3.5. The formal status of firms vis-a-vis expectations about sales and employment

Formal firms have a positive outlook regarding sales and employment than informal firms, at least under an optimistic scenario. With reference to Figure 3.5, while informal firms expect a decline in sales for the next six months under pessimistic, most likely, optimistic scenarios with probabilities of 41.5 percent, 26.6 percent, and 21.3 percent respectively; formal firms only report a decline in sales for only the pessimistic scenario with a probability of 22.4 percent. Concerning the optimistic and most likely scenarios, formal firms expect a positive outlook in sales with a probability of 28.2 percent and one (1) percent, respectively.

Figure 3.6 shows that the sales pattern is similar to employment expectations, except for the probability levels under different scenarios. For instance, while formal firms express a positive outlook in employment under an optimistic scenario with a five (4.6) percent probability, and a negative outlook for pessimistic and most likely scenarios with 15 per cent and five (4.8) percent probabilities respectively; informal firms report a decline under the three scenarios of pessimistic, most likely, and optimistic scenarios with eight (8) percent, six (6) percent, and five (4.8) percent probabilities respectively.



Informal

-26.6

-41.5

-21.3

0.8

Formal

-22.4



Figure 3.6: Expectation about employment by formality

3.6. Sales and employment outlook for exporting firms

In Figure 3.7, exporting firms report a positive outlook concerning sales and employment expectations than non-exporting firms, especially under the optimistic scenario. Under a pessimistic scenario, even though both exporting and non-exporting firms report a foreseeable decline in sales for the next six months, non-exporting firms expect this decline with a higher probability of 23.8 percent, five (5) percent higher than reported by non-exporting firms. Under the optimistic scenario, exporting firms are more confident (with 86% probability) of future sales increase than the non-exporting firms (24.0%). The disproportionate probabilities in positive sales outturn between exporting and non-exporting firms are similar for the six-month employment expectation, with probabilities of 15 percent probability by non-exporting firms (Figure 3.8).



3.7. Expectations by size of firms

Firms have different expectations regarding various aspects of their businesses amid the global pandemic. These expectations vary across firms with different sizes (Table 3.2). About 34.2 percent of micro firms expect cash transfer for their business operations. Only 7.4 percent of large firms expect cash transfers. That is, relatively larger firms expect less cash transfer from benefactor institutions than smaller ones. Some firms also expect deferral of rent, mortgages, or utilities. From the data, 29.4 percent of medium firms expect deferral of rent, mortgages or utilities. Also, 14.8
percent of micro firms expect access to credit. 4.2 percent of large firms expect wage subsidies, while 13.5 percent of medium-sized firms indicated their expectation for IT training services. Most small firms expect formalization of their businesses relative to larger firms. Moreover, 33.9 medium-sized firms expect tax deferrals, while 26 percent of large-sized firms expect deferral of credit payments. Most firms expect to be granted loans with subsidized interest rates to cushion their businesses. Specifically, 66.8 per cent of the small-sized firms, 59.7 per cent of large firms; 59.4 per cent of micro firms, and 48.7 per cent of medium-sized firms expect to be granted loans with subsidized interest rates due to COVID-19 shock on their operations (Table 3.2).

Expectations	Micro	Small	Medium	Large
Expectations	(1-5)	(6-30)	(31-100)	(100+)
Cash transfer	34.2	26.8	20.5	7.4
Deferral of rent, mortgage, or utilities	20.2	22.6	29.4	20.7
Deferral of credit payments	4.4	6.7	15.5	26.0
Access to new credit	14.8	13.7	7.1	7.6
Loans with subsidized interest rates	59.4	66.8	48.7	59.7
Fiscal exemptions or reductions	3.9	4.0	11.1	1.9
Tax deferral	15.5	13.1	33.9	33
Wage subsidies	2.0	3.8	2.3	4.2
Training	0.7	2.4	7.6	2.1
IT Training	0.3	2.3	13.5	0.0
Formalization	4.5	4.1	1.2	0.2
Others	5.8	10.6	13.5	8.7

Table 3.2: Expectation by size of firms

CHAPTER FOUR

FIRMS RESPONSE TO COVID-19

4.1. Introduction

The outbreak of COVID-19 has changed the way of operations of firms around the world. To reduce face-to-face human interactions as COVID-19 protocol demands, most firms have either adopted or enhanced digital platforms use in their business operations. Others, due to multiple factors, have changed their employment situation (either reduced the number of employees or the number of hours of work). Ghana is no exception in these respects. This chapter describes the adoption of digital solution and changes in Ghanaian firms' employment situations since the emergence of COVID-19.

4.2. Use of Digital Solutions

Figure 4.1 shows that 9 percent of all business establishments either adopted or increased internet use for their operations, and 37.5 percent used mobile money in business transactions. Firms in agriculture and other industries used relatively more digital solutions (internet, 13.5%; mobile money, 42.0%) than other sectors. Firms in the accommodation and food sector were the ones that adopted digital solutions the least (internet, 1.7%; mobile money, 26.1%).



Figure 4.1: Share of firms using mobile money and internet for sales

In response to COVID-19 outbreak, 17 percent of business establishments, 15 percent of household firms and 11 percent of young Small-Scale Enterprises (SMEs) have adopted the use of digital platforms to do business.





On the use of digital solutions across the various sectors of the economy in response to COVID-19 outbreak, 12 percent of the firms within the agriculture and other service industries indicated that they have started using digital solutions in their business operations while 11 percent reported increase in the use of digital solutions for their operations. Further, about 11 percent of firms within the other service industry indicated that they have started using or increased the useof digital solutions to do business. Nine (9) percent of the firms in the manufacturing industry indicated that they have started using digital solutions whereas four (4) percent indicated they have increased usage of digital solutions. Least proportion (5.3%) of firms in the trade sector indicated that they have started using digital solution.



Figure 4.3: Use of digital solutions by sector

Firms with different sizes respond differently to the adoption of digital solutions resulting from the outbreak of the COVID-19 (Figure 4.4). From Figure 4.4, 12 percent of micro-enterprises reported having started using digital solutions since the pandemic while one (1) percent of firms who were already using digital platforms to do business reported to have increased its use since due to the pandemic. For small enterprises, nine (9) percent reported having started using digital solution due to COVID-19 while six (6) percent reported the pandemic has made them increased the use of digital solutions to do business. Six (6) percent of medium enterprises reported to have started using digital solution while 41 percent have increased the use of digital solution due to the pandemic.

Comparatively, the highest proportion of micro-enterprises responded to the pandemic by adopting (starting to use) digital solutions than the other categories of firms. Also, the largest proportion of medium enterprises increased the use of digital solutions compared to the remaining firm groups (Figure 4.4). Just a small proportion of large firms either started using (4%) or increased (3%) the use of digital platforms due to the pandemic.



Figure 4.4: Digital solution adoption by firm size

Figure 4.5 presents the distribution of formal and informal firms who used digital solution due to the pandemic. From Figure 4.5, five (5) percent of firms in the informal sector reported to have started using digital solutions while two (2) percent have increased the use of digital solutions. Similarly, 11 percent of firms in the informal sector reported to have started using digital solutions while nine (9) percent reported having increased the use of digital solutions. Thus, firms in the formal sector responded to the pandemic by using digital solutions than informal firms.



Figure 4.5: Digital solution adoption by formality status of firms

Nine (9) percent of non-exporter firms reported to have started using digital solutions in response to the outbreak of COVID-19 while seven (7) percent reported to have increased the use of digital solutions. For exporter firms, 42 percent reported to have started using digital solutions while six per cent reported to have increased the use of digital solutions. These distributions are showcased in Figure 4.6.





CHAPTER FIVE

EMPIRICAL ANALYSIS OF DIGITAL SOLUTION ADOPTION AND SALES

5.1. Introduction

To mitigate the impact of COVID-19 on their businesses (specifically on the sale of goods and services) due to Government's restrictions in movements and also people's fear of contracting the virus from movements, firms adopted technologies that made it possible to do business with no or little face-to-face interaction with clients. Digital solutions adopted for this purpose were either mobile money or other internet platforms of doing business. This is not to say that Ghanaian businesses were not using digital platforms at all for their operations before the pandemic. However, the increase in uptake by businesses due to the virus shows the importance of digital solution as a mitigation measure for the pandemic's impact on its sales. This chapter thus examines the effect of adoption of digital solutions by Ghanaian businesses on their sales in the wake of the COVID-19 pandemic. First is the description of the adoption of these technologies and later an examination of the impact of the adoption of digital solutions on sales in Ghana.

It is evident that more businesses adopted the use of mobile money than internet platforms for their operations (Figure 5.1). The percentage of Ghanaian firms that adopted the use of mobile money and internet for their operations in 2020 is 14.42 percent and 5.29 percent higher than they were in 2019.



Figure 5.1: Digital solution adoption

Even within the year 2020, firms recorded different sales in March and April. Difference in sales for the two months is further disaggregated by firms' adoption of either of the two technology platforms (i.e. mobile money and internet). Figures 5.1 to 5.5 describes differences in sales based

on firms' adoption of mobile money for their operations while Figure 5.6 to Figure 5.9 describes differences in sales based on firms' adoption of internet platforms for their operations. Value of sales in March was higher than that of April. Figure 5.2 shows the average value of sales for businesses who have adopted mobile money in their operations and businesses who have not. The figure shows that the value of sales in either March or April is higher for firms who used mobile money for their transactions. This observation might be due to the adoption of the technology (in this case mobile money) by the firms reduces the cost of transacting business for customers. For instance, it reduces customers' risk of holding cash and also reduces their cost of liquidating the digital money (time and transaction charges). These advantages might make people prefer to buy from firms who provide this service relative to those who do not.



To correct for errors in computing the mean value of sales due to differences in the distribution of the value of sales reported by the various groupings of firms, the logs of the reported values of sales were taken. Similar to Figure 5.2, the average value of the log of sales for businesses who have adopted mobile money in their operations and businesses who have not is presented in Figure 5.3. The difference between the two graphs is that the scale for Figure 5.2 is the raw value of sales while the scale for Figure 5.3 is the logarithm transformation of the value of sales.





It was observed that the difference in the average value of sales is very similar in both instances (Figures 5.2 and 5.3). Thus, the distributions of the raw value of sales and their log values for the various groups are similar.

Differences in the value of sales of firms that use mobile money and those that do not use mobile money for their operations also exist across firms in different economic sectors in both March and April, 2020 (Figure 5.4). It was observed that, but for the manufacturing sector, the average value of sales is higher for firms who adopted the use of mobile money for its operations. This observation is similar for both March and April, 2020. It was also evident that for all cases, the value of sales was highest among firms in the Agriculture and other industries sector.



Figure 5.4: Mobile money and sales by sector

Figure 5.5 on the other hand, presents the log of the value of sales for firms based on their adoption of mobile money in their operations across five broad economic sectors for March and April, 2020. Figure 5.5 is thus the version of the presentation on Figure 5.5 but with the scale corrected for variations that might be due to outliers in the raw value of sales variable. Similar to what was observed in Figure 5.4, the average value of sales is higher for firms who adopted the use of mobile money for its operations in the sectors of accommodation, agriculture and other industries, other services and trade. Contrary to Figure 5.4 however, Figure 5.5 shows that the average value of sales is relatively higher for firms who employed mobile money for their operations than those who have not for both March and April. Differences in the value of sales between mobile money adopters and non-mobile money adopters in the manufacturing sector as presented on the scales of measuring the value of sales (i.e. raw values and logged values) are due to the skewed distribution of the reported (raw) value sales which are corrected for through the logarithm transformation.



Figure 5.5: Mobile money and log of sales by sector

Just as in the case of determining differences in the value of sales for mobile money adopting firms and firms who have not adopted mobile money for their operations, following is a description of differences in the average value of sales for firms who adopted the use of internet platforms for sales and firms who did not (Figure 5.6 to Figure 5.9). From Figure 5.6, firms who used internet platforms recorded far higher sales than firms who did not adopt any internet platform for sales. This observation is true for both March and April, 2020.



To correct for errors in computing the mean value of sales due to differences in the distribution of the value of sales reported by the various groupings of firms, the logs of the reported values of sales were taken. Similar to Figure 5.6, the average value of the log of sales for businesses who have adopted internet platforms in their operations and businesses who have not is presented in

Figure 5.7. It is observed that the difference in the average value of sales is very similar in both instances (Figures 5.6 and 5.7). Thus, the distributions of the raw value of sales and their log values for the various groups are similar.



Differences in the average value of sales for internet adopters and non-internet adopters in March and April, 2020 is again determined at a disaggregated level by firms' sectors of operations (Figures 5.8 and 5.9). Differences in the value of sales between internet adopters and non-internet adopters in Figures 5.8 and 5.9 is that the scale for Figure 5.8 is the raw value of sales while the scale for Figure 5.9 is the logarithm transformation of the value of sales. The logarithm transformation of the reported value of sales is to correct for possible bias of the distribution of the reported value of sales due to the presence of outliers.



Figure 5.8: Internet and sales by sector

The average value of sales for firms who adopts internet platforms for their operations is higher than that of firms who do not use internet platforms for their sales. The difference is most pronounced in the other services sector. Similar to Figure 5.8, Figure 5.9 shows that the average value of sales for firms who adopts internet platforms for their operations is higher than that of firms who do not use internet platforms for their sales.



Figure 5.9: Internet and log of sales by sector

Having described the differences in the value of sales of firms who have adopted digital solutions for their operations as a mitigating measure to the impact of COVID-19 on their operations, the impact of firms' adoption of digital solutions on sales was further empirically examined. To do this, first determine firms' likelihood of adopting either mobile money or internet platform for its sales based on the firm's characteristics such as sector of operation, firm age, legal status of firms, formality status of the firm, firm size and the region in which the firm is sited. This is done by estimating probit models with the adoption of digital solution as dependent variable (mobile money and internet). Similar model (with mobile money adoption as the dependent variable) is estimated for subsamples of firms at various sectors of firms. Results from the probit estimates using the entire data sample and having mobile money and internet as dependent variables are presented in Table 5.1. Probit estimates for sectorial subsamples with the adoption of mobile money as dependent variable are presented in Table 5.3. Using adoption of digital solution (i.e. mobile money and internet) as treatment variables, estimate the Average Treatment Effects on the Treated (ATETs) using Inverse Probability Weighted Regression Adjustment (IPWRA) technique for all firms while controlling for the effects of firm's characteristics on the estimates. A similar estimate is done for firms in the various subsamples (here mobile money adoption is the dependent variable). Results from the PSM estimates based on the entire data and the sectorial subsamples are presented in Tables 5.2 and 5.4 respectively. In all cases, firms who have adopted digital solution for their operations is the treated group while firms who have not adopted digital solution for their operations is the control group.

	Adoption of Digital Solutions						
	Mobile N	Money	Interr	net			
	Coef.	t	Coef.	t			
Sector: Manufacturing							
Accommodation	0.0140	0.12	-0.539**	-3.03			
Agric & Other Industries	-0.311*	-2.28	-0.228	-1.28			
Services	0.240^{**}	3.29	0.202^{*}	2.14			
Trade	0.135^{*}	2.32	-0.157^{+}	-1.94			
Firm age: Young $(0-4)$							
Maturing $(5 - 14)$	0.155^{*}	2.03	0.0293	0.27			
Established (15+)	0.0507	0.63	-0.179	-1.56			
Legal status: Sole Proprietor							
Partnership	0.188	1.63	0.113	0.75			
Limited Liability	-0.104	-1.00	0.595^{***}	5.13			
NGO	-0.144	-0.77	0.635^{**}	3.22			
Association	-0.747***	-3.71	-1.037*	-2.29			
Other	-0.592	-1.35	0.111	0.24			
Formality: informal							
Formal	0.233^{***}	4.32	0.315^{***}	3.89			
Size: Micro $(1-5)$							
Small (6 – 30)	0.271^{***}	4.91	0.304^{***}	4.04			
Medium (31 – 100)	0.606^{***}	4.78	0.588^{***}	4.02			
Large (100 +)	0.456^{+}	1.82	0.445	1.62			
Region: Ahafo							
Ashanti	-0.442^{*}	-2.41	-0.145	-0.62			
Bono	-0.389+	-1.89	-0.0762	-0.29			
Bono East	-0.180	-0.86	0.0424	0.16			
Central	-0.639***	-3.47	0.0918	0.40			
Eastern	-0.425^{*}	-2.33	-0.213	-0.92			
Greater Accra	-0.614***	-3.39	-0.0613	-0.27			
North East	-1.085***	-4.35	-0.621	-1.57			
Northern	-0.176	-0.94	0.0688	0.29			
Oti	-0.171	-0.72	0.321	1.10			
Savannah	-0.284	-1.04	0.262	0.77			
Upper East	-0.459^{*}	-2.34	-0.0932	-0.37			
Upper West	-0.625**	-3.24	-0.631*	-2.22			
Volta	-0.697***	-3.70	-0.405	-1.61			
Western	-0.442*	-2.41	-0.239	-1.02			
Western North	-0.744^{***}	-3.65	-0.0728	-0.29			
_cons	-0.0918	-0.50	-1.487***	-6.29			
N	2790		2790				

Table 5.1: Likelihood of digital solutions adoption by type of digital platform adopted

 $\frac{1}{p^{+} = 0.10, p^{+} = 0.05, p^{+} = 0.01, p^{+} = 0.001}$ It is evident that a firm's decision to adopt a particular digital solution to mitigate the effect of the pandemic on its operations is explained by the characteristics of the firm. For instance, firms that

are into the provision of services and trade are more likely to adopt mobile money for sales than firms that are into manufacturing. On the contrary, firms in the agriculture and other industries sector are less likely to use mobile money for sales than those in the manufacturing sector.

Firms that have been in operation for 5 to 14 years are also more likely to adopt the use of mobile money relative to those who have been in existence for less than 5 years. Associations are less likely to adopt the use of mobile money for their operations relative to sole proprietors. It was also observed that formal businesses are more likely to adopt the use of mobile money than informal businesses. In a similar vein, small, medium and large firms are also found to have higher likelihoods of adopting mobile money for their operations than micro-businesses. Compared to the Ahafo region, firms in all other regions are less like to adopt the use of mobile money for their operations.

In the case where the adoption of internet is used as a proxy for digital solution, it is observed that firms in the accommodation, services, and trade sectors are less likely to adopt internet platforms for their sales than firms in the manufacturing sector. While limited liability companies and NGOs are more likely to use internet platforms for their sales relative to sole proprietors, associations are less likely to adopt the use of the internet for their the sales than sole proprietors. Compared to informal businesses, formal businesses are also more likely to use internet platforms for their sales than their counterparts in the informal sector. Small and medium-sized firms are also found to be more likely to use internet platforms for their operations than micro-enterprises.

Controlling for firm characteristics, Table 5.2 presents the impact of the adoption of either mobile money or internet by firms for their operations on the total sales of firms for March and April, 2020. In order to avoid the possible bias of the estimate due to the skewed distribution of the reported value of sales, the log of the value of sales was used for the estimation. As aforementioned, the treated group in each case is made up of firms who have adopted the digital solution under perspective for their sales. Firms who use either mobile money or internet for their operations had higher sales than those who adopted neither of the digital solution platforms for their sales.

Table 5.2: Treatment effect of adoption of digital solutions on 2020 March and April sales							
	Mobile N	Money	Internet				
	Coef.	t	Coef.	t			
ATET	0.443***	6.71	0.279^{*}	2.39			
No	7.834***	137.65	8.463***	85.75			
Yes	8.278^{***}	152.15	8.742***	68.02			
N	2790		2790				

Table 5.2: Treatment effect of adoption of digital solutions on 2020 March and April sales

 $^{+} p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001$

Table 5.3 shows that independent of the sector it belongs, a firm's decision to adopt mobile money to mitigate the effect of the pandemic on its operations is dependent on certain characteristics of

the firm. Adoption of mobile money by firms in the manufacturing sector, for instance, is influenced by the age of the firm, the legal status of the firm, whether the firm is in the formal sector or not, and the region in which the firm operates.

	Manufac	cturing	Accomm	odation	odation Agric & Other Services		Other Se	rvices	Trae	le
	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t
Firm age: Young $(0-4)$										
Maturing (5 – 14)	0.169	1.17	0.383	1.07	-0.882*	-2.02	0.327^{+}	1.82	0.205^{+}	1.70
Established (15+)	0.182	1.23	-0.256	-0.65	-1.274**	-2.73	0.124	0.64	0.0522	0.40
Legal status:										
Partnership	0.0594	0.28	0.942	1.45	-0.176	-0.35	0.274	0.96	0.269	1.51
Limited Liability	0.0422	0.22	-0.339	-0.74	-0.00835	-0.02	-0.419+	-1.82	0.0287	0.16
NGO	-3.171***	-12.67	3.426***	3.99	0.378	0.42	-0.396	-1.62	0.597	0.89
Association	-0.118	-0.23			-3.768***	-9.22	-1.065***	-3.80	-0.409	-0.77
Other	0.681	0.95	0		-3.740****	-7.82	-1.330+	-1.77	-3.840***	-11.96
Formality: informal										
Formal	0.277^{**}	3.27	0.682^{+}	1.87	-0.174	-0.46	0.231	1.57	0.246**	2.73
<i>Size: Micro</i> (1 – 5)										
Small (6 – 30)	0.137	1.60	0.517^{+}	1.73	0.00905	0.03	0.451**	3.21	0.345***	3.48
Medium (31 - 100)	0.197	0.86	1.710^{**}	2.67	-0.0591	-0.13	1.019***	3.47	0.875***	3.40
Large (100 +)	-0.187	-0.45	4.175***	8.11	0.588	0.94	0.605	1.15	3.821***	16.28
Region: Ahafo										
Ashanti	-0.459	-1.50	-1.009	-1.15	-0.549	-0.58	-0.675+	-1.73	-0.226	-0.64
Bono	-0.133	-0.40	-0.943	-1.08	-0.760	-0.72	-0.598	-1.01	-0.480	-1.24
Bono East	-0.422	-1.26	-4.511***	-6.55	0.303	0.22	-0.247	-0.56	0.416	1.01
Central	-0.772^{*}	-2.49	-1.293+	-1.70	-0.647	-0.66	-0.742*	-2.02	-0.315	-0.88
Eastern	-0.373	-1.21	-1.306+	-1.67	-0.230	-0.24	-0.565	-1.53	-0.351	-0.99
Greater Accra	-0.777^{*}	-2.51	-0.872	-1.22	-0.907	-0.99	-0.962**	-2.61	-0.138	-0.39
North East	-0.711	-1.52	-1.575	-1.39	-3.822***	-4.02	-5.263***	-15.08	-0.745+	-1.82
Northern	-0.337	-1.05	-1.875*	-2.00	0.0319	0.03	-0.203	-0.51	0.221	0.63
Oti	-0.267	-0.66	-1.575	-1.42	0		0.0423	0.08	0.0447	0.11
Savannah	-0.574	-0.87	3.510***	5.28	0		-0.454	-0.91	-0.0862	-0.19
Upper East	-0.692*	-2.15	3.880***	5.67	-0.775	-0.74	-0.956+	-1.88	0.0112	0.03
Upper West	-0.566+	-1.67	-0.298	-0.38	-1.066	-0.92	-0.800^{+}	-1.90	-0.475	-1.34
Volta	-1.088***	-3.34	-0.929	-1.08	0.428	0.45	-0.718^{*}	-1.98	-0.333	-0.89
Western	-0.745*	-2.34	-0.456	-0.62	-0.0278	-0.03	-0.588	-1.59	-0.0759	-0.22
Western North	-0.803*	-2.39	-4.112***	-6.49	-4.769***	-4.80	-1.064**	-2.72	-0.309	-0.75
_cons	-0.00613	-0.02	-0.287	-0.45	1.003	1.05	0.189	0.51	-0.335	-0.97
Ν	1065		129		119		499		978	

Table 5.3: Likelihoods of mobile money adoption by sector

 $\overline{p} < 0.10, p < 0.05, p < 0.05, p < 0.01, p < 0.001$

In the case of firms in the accommodation sector, decision to adopt mobile money for sales is dependent on the legal status of the firm, formality status of the firm, firm size, and region in which the firm is sited. Firm's age, legal status, and region of operation influence the decision of firms in the agriculture and other industries sector to adopt mobile money or not.

Table 5.4 presents the treatment effect of adoption of mobile money on the total sales of firms for March and April, 2020 by sector. The dependent variable for each subsample is the log of sales. Controlling for firm characteristics, it is evident that for all sectors firms who adopts the use of mobile money for their operations recorded higher sales than those who did not adopt the use of mobile money for their sales.

	Manufa	cturing	Accommodation		Agric & Other Services		Other Services		Trade	
	Coeff.	t	Coeff.	Т	Coeff.	t	Coeff.	t	Coeff.	t
ATET	0.414***	4.22	0.0230	0.06	0.917	0.71	0.292+	1.82	0.633***	5.11
No	7.578***	93.35	8.591***	22.47	8.187***	6.18	7.538***	50.47	8.054***	76.03
Yes	7.993***	101.17	8.614***	44.30	9.104***	27.00	7.829***	58.72	8.688***	94.13
Ν	1065		129		119		499		978	

Table 5.4: Treatment effect of adoption of mobile money on 2020 March & April sales by sector

 $^{+} p < 0.10, ^{*} p < 0.05, ^{**} p < 0.01, ^{***} p < 0.001$

CHAPTER SIX

DESIRED POLICIES AND GOVERNMENT SUPPORT

This chapter discusses the policies that can support the private sector in the recovery stage in several ways, for example by providing credit guarantee schemes for those accessing finance, assisting with input procurement, and facilitating trade. In addition, policies can help firms adjusting to the "new" normal by providing support to increase productivity through business development services, worker and manager training and grant schemes to facilitate technological upgrading, including using digital technologies. Helping businesses adopt best practices can be expected to increase their productivity and resilience in future challenges.

Figure 6.1 discusses the desired policies that are needed to support firms both in the short and the medium term. The decrease in demand as well as difficulties in financing cash shortfalls puts many firms in a difficult position. Firms report that measures improving liquidity (subsidized interest rates, cash transfers and deferral of payments) are the most desired policies. However, at the same time, only a few firms (3.5 percent) report that they had received support. Many firms indicated that they were not aware of support programs, suggesting the need for increased awareness and clarity on the guidelines and requirements of current programs.

The top three policies that firms desire include loans with subsidized interest rates (61.0 percent), cash transfer (32 percent), and deferral of rent payment (20.9 percent).



Figure 6.1: Desired policies

Reasons for not getting support in Figure 6.2 shows that only 3.6 percent of firms received some form of government support at the time of survey. Lack of awareness (35.1 percent) is the predominant reason why firms do not get support from Government, while 12.2 percent of firms indicate that they did not apply because they thought they would not get it.



Figure 6.2: Reasons given for not getting support

Firms desired some policies to manage the impact of the pandemic on their businesses. The desired policies depended on the sector of the firm as presented in Table 6.1. Among others, the desired policies included cash transfer, deferral of rent, mortgage or utilities, deferral of credit payments, access to new credit, and loan with subsidized interest rates. Across policies, it could be deduced that the most desired policy was subsidized loans with a minimum of about 30 percent of firms in the human health and social work activities sector desiring this policy and a maximum of 84 percent of firms in the construction sector.

Generally, 15 out of the 20 listed sub-sectors had subsidized loans to be the most desired policies. Deferral of rent, mortgage or utilities was desired most by firms in the information and communication sub-sector (73%) and human health and social work sub-sectors (33%). Firms in the financial and insurance sector desired IT training (55%), while household firms desired cash transfers (60). The real estate sector desired highly three policies which included access to new credit (92%), tax deferral (91%) and subsidized loans (82). Some sectors desired all the policies listed although at various degrees. These included the manufacturing sector, construction, wholesale, information and communication, financial and insurance, professional, education, human health and other service

Table 6.1: Desired policies by sector

Sector	Cash transfer	Deferral of rent, mortgage, or utilities	Deferral of credit payments	Access to new credit	Loans with subsidized interest rates	Fiscal exemptions or reductions	Tax deferral	Wage subsidies	Training	IT Training	Formalization	Others
Agriculture, forestry and fishing	38.8	11.3	6.3	15.1	67.6	3.6	13.4	2.4	0	1.1	5.4	4.9
Mining and quarrying	30.5	5.2	11.4	9.9	81.7	5.7	3.1	0	0	0	1.1	3
Manufacturing	39.1	11.2	1.2	7	64.2	3.8	10.1	2	0.6	0.2	3.9	7.2
Electricity, gas, steam and air conditioning supply	26	33.5	1.6	21.9	49.9	0.7	17.4	0.8	0.5	0	3.4	1.4
Water supply; sewerage, waste management and remediation activities	6.1	9.4	4.2	5.2	35.6	0	11.7	20.2	0.5	0.1	1.9	17
Construction	22.2	18	16	17.7	84.3	3.6	16	1	0.2	2.6	1.9	7.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	32.7	14.7	3.7	9.1	64.2	3.3	22	1.5	0.6	0.4	5.4	4.8
Transportation and storage	19	27.6	1.4	36.2	62	5.7	17	1.3	0.5	0	7.5	17.9
Accommodation and food service activities	18.9	36.7	9.2	22.5	71.3	2.2	12.5	3.5	0.6	0	0.2	4.6
Information and communication	12.1	73.4	12.9	55	65.1	4.6	16.7	9.7	0.5	2.9	3.2	2.4
Financial and insurance activities	5	46.6	2.4	17.6	27.7	1.9	47	9.2	0.5	54.7	4.5	6.4
Real estate activities	0	3.8	0	91.8	81.9	0	90.6	2.5	0	0	0	4.1
Professional, scientific and technical activities	44	35.7	5.1	11.8	60.7	11.5	13.3	3.7	4.3	0.2	3	9.1
Administrative and support service activities	19.1	9.9	0	12.1	81.5	0.4	15.3	0	0.3	3.9	0	17.9
Education	20.7	20.2	14.3	40.8	46	6.7	10.4	3.4	13.7	2.6	0.9	37.1
Human health and social work activities	31.7	33.3	0.9	27.8	29.9	0.7	20.4	12.7	2.7	2.9	11.4	4.8
Arts, entertainment and recreation	19.6	35.9	2.8	15	57.3	15.6	15.4	0.3	0	0.5	4.1	12
Other service activities	33.7	25	7.7	17.8	54.3	4.2	12.1	2.2	2.2	1.3	4.4	7.5

Government had just established some support packages for firms to help them survive the impact of the pandemic. However, this was in its early stages when the survey was carried out hence many firms had not yet received these Government supports. Firms that applied and received the highest support from Government were the agriculture, fishing and forestry sector (14%), followed by the transportation and storage (10%) and education (9%) (Figure 6.3). Across types of firms, only 14 percent of young SMEs received government support (the highest among all firm types).



For more establishments, only 3 percent received support, while 11 percent household firms received government support (Figure 6.4). With respect to the age of firms, 4 percent each of young firms and established firms applied and received government support with 3 percent of maturing firms receiving government support.





Table 6.2 presents the distribution of the specific support received so far by the detailed sectors of the country. Across all sectors, 14 percent of firms in the agriculture, forestry and fishing sector received government support, 77 percent received cash transfer with 60 percent receiving subsidized loans. All sectors in the mining and quarrying sub-sector that received government support opted for deferral of rent, mortgage or utilities. Also, all the firms in the electricity and the water supply sub-sectors that received government support received subsidized loans and tax deferral respectively. Generally, deferral of rent, mortgage or utilities was the most common government support received by firms across the sectors.

Table 6.2: Receipt of Specific Government support by sector

Sector	Cash transfer	Deferral of rent, mortgage, or utilities	Access to new credit	Loans with subsidized interest rates	Fiscal exemptions or reductions	Tax deferral	Wage subsidies	Training	IT Training	Formalization	Others
Agriculture, forestry and fishing	77.4	7.4	0	60.4	0	0	0	0	7.3	0	24.9
Mining and quarrying	0	100	0	0	0	0	0	0	0	0	0
Manufacturing	3.5	79.5	0	3.9	0	0	0	0.2	0.2	4	12.5
Electricity, gas, steam and air conditioning supply	0	0	0	100	0	0	0	0	0	0	0
Water supply; sewerage, waste management and remediation activities	0	0	0	0	0	100	0	0	0	0	0
Construction	0	75.8	0	19.8	0	0	0	0	4.4	0	0
Wholesale and retail trade; repair of motor vehicles and motorcycles	3.2	76.5	0	6.3	0	0	0	0	0	0	17.2
Transportation and storage	0	7.9	0	0	0	0	0	0	0	0	92.1
Accommodation and food service activities	0	85.5	0	0.2	0	2	0	0	0	0	7.7
Information and communication	12.7	57.5	0	0	0	0	0	7.5	0	0	35
Financial and insurance activities	0	21	0	0	0	0	0	0	0	0	79
Real estate activities											
Professional, scientific and technical activities	7.2	39.3	0	35.4	7.3	0	0	0	0	10.8	7.2
Administrative and support service activities	3.1	87.8	3.1	0	0	0	0	0	0	0	9
Education	0	26.4	0	18.9	0	16.9	0	0	1	0	53.8
Human health and social work activities	45.8	7.7	0	2.4	0	0	0	0	2.4	0	92.3
Arts, entertainment and recreation	1.1	50.8	0	47.2	0	0	0	0	0	0	13.6
Other service activities	1.2	51.2	0.1	24	0	0.1	0	0.2	0.2	0	22.3

Firms provided some reason for not receiving the various Government supports as shown in Table 6.3. Lack of awareness, application process is difficult and also eligible criteria of the government support was a major reason most firms did not receive the support. Real estate activities had about 79 percent of firms who have applied for the support but yet to receive. About 27 percent of firms in the professional, scientific and technical sub-sector indicated the likelihood of not expecting it as the reason for not applying and 26 percent in the electricity sub-sector.

Sector	I was not aware	Too difficult	I am not eligible	Applied but not received	Not expected to get it
Agriculture, forestry and fishing	31.9	20.6	8.1	7.3	16.6
Mining and quarrying	19.8	18.2	1.9	1.0	15.4
Manufacturing	28.1	5.1	3.3	12.8	10.9
Electricity, gas, steam and air conditioning supply	33.1	0.3	0.9	2.5	26.3
Water supply; sewerage, waste management and remediation activities	40.3	0.6	5.2	4.7	3.4
Construction	32.7	18.7	11.1	9.5	13.4
Wholesale and retail trade; repair of motor vehicles and motorcycles	43.2	7.2	1.6	7.5	7.0
Transportation and storage	30.3	14.2	0.7	0.6	18.9
Accommodation and food service activities	31.6	9.8	4.6	5.1	13.2
Information and communication	51.8	2.8	4.3	6.7	5.2
Financial and insurance activities	54.8	15.4	2.5	12.9	6.8
Real estate activities	1.3	4.1	2.5	78.5	10.8
Professional, scientific and technical activities	17.2	9.1	3.4	12.2	26.8
Administrative and support service activities	35.2	2.5	0.1	8.1	9.6
Education	21.2	2.5	1.5	29.5	8.9
Human health and social work activities	41.5	2.9	8.1	3.3	18.7
Arts, entertainment and recreation	25	2	0.7	16	10.7
Other service activities	35.1	6.8	5.3	1.9	16.4

Table 6.3: Reasons for not receiving support by sector

CHAPTER SEVEN

SUMMARY AND CONCLUSION

7.1. Impact on Business Operations and Outputs

The imposition of partial lockdown in two major cities in Ghana as a response to curtail the spread of the coronavirus affected businesses in diverse ways and caused on average, 35.7 percent of business establishments to be closed. About 6.1 percent of these establishments continued to be closed after the easing of the lockdown restrictions, with firms in the accommodation and food sector being the most affected (24.0 %). Household firms were not spared either during the period with nearly one-quarter (24.5%) of them being closed.

The sectors with the highest proportions of closures during the partial lockdown were education (65.4%), financial services (47.0%), transport and storage (46.4%) and manufacturing (39.8%). Small-sized firms were the most affected during the lockdown, with 31.6 percent of firms temporary closed. Firms in the Manufacturing sector were the hardest hit with 36.0 percent of them being temporary closed followed by firms in the Other Services with 33.0 percent being temporarily closed.

Firms in the partial lockdown regions reported the highest levels of temporary closures during that period with 48.1 percent of firms in the Ashanti region and 46.4 percent of firms in the Greater Accra region. Only 7.3 percent and 5.1 percent of businesses were permanently closed in the Ashanti and Greater Accra regions respectively.

On the labour front, 46.1 percent of business establishments report that they reduced wages for 25.7 percent of the workforce (an estimated 770,124 workers). Only 4.0 percent of firms indicate that they have laid off workers, corresponding to 1.4 percent of the workforce (an estimated 41,952 workers).

More than half of firms (51.4 percent) report difficulties in sourcing inputs. Accommodation and food (58.9 percent) and wholesale and retail trade sectors (53.7 percent) were the most affected sectors. About 84.6 percent of firms report that these difficulties were as a result of products not being available while 42.3 percent of firms report that the costs have increased.

7.2. Business Outlook and Expectation

The shock arising from the emergence of the global COVID-19 pandemic has led to uncertainty in the business environment in the country, such that when the uncertainty of businesses was examined within the context of sales and employment expectation for the next six months, under a pessimistic, optimistic, and a likely scenario, averagely many firms present uncertainty for sales and employment in the next six months. However, the levels of uncertainty vary across sectors, regions, and firm sizes, such that while some clusters portray a bright future under certain circumstances, others within same circumstances present a gloomy picture. Apart from firms in the agriculture and other industry sectors where firms expect a positive employment outlook under all the three scenarios, the other sectors report of a negative employment outlook for the next six months. Concerning the sales outlook, apart firms in manufacturing, agriculture and other industries that present a positive sales outlook under likely and optimistic scenario, firms in other sectors reports of a negative sales outlook across all the scenarios. Varying levels and directions of outlooks are reported across regions, such that even firms within regions which did not experience a lockdown also report uncertainty in the sales and employment outlook of firms. The negative outlook by firms in some regions where there was no lockdown, could plausibly be a result of pass through effects of the lockdown in Ashanti and the Greater Accra regions.

7.3. Firms Response to Covid-19

The chapter assessed the proportion of Ghanaian firms that have adopted the use of digital solution for their operations. Some firms were already using digital platforms for their operations prior to the first case of COVID-19 in Ghana. The incidence of the pandemic however made some of these firms to deepen the use of these platforms. Other firms who were not using digital platforms for their operations also adopted them to mitigate the effect of the pandemic on their operations. The most adopted platform is the mobile money platform. The scale of adoption of digital platforms among each of the pairs (i.e. new adopters and old adopters) differed across different firm groups like sector of operations, size, formality status, and whether the firm is an exporter or importer.

7.4. Empirical Analysis of Digital Solution Adoption and Sales

The chapter presents an empirical examination of the effect of digital solution adoption by firms as a mitigation measure against COVID-19 on their sales. Description of the data showed that the average value of sales is higher for firms who use digital solutions for their operations. Certain characteristics of the firm influence firm's decision to adopt a particular form of digital solution for its operation. The empirical analysis showed that adoption of a digital solution is a good mitigation measure against the impact of the pandemic on sales.

7.5. Desired Policies and Government Support

The result shows that measures improving liquidity (subsidized interest rates (60%), cash transfers (32%) and deferral of payments (20.9%)) are the most desired policies for many firms. However, deferral of rent, mortgage or utilities was the desired policy of the information and communication sub-sector (73%) and IT training (55%) been the desired policy for firms in the financial and insurance sub-sector.

With regards to government support, only 3.5 percent of the firms report that they had received the support. Firms in the agriculture, fishing and forestry sector received the highest (14%), followed by transportation and storage (10%) and education with 9 percent. Among the 14 per cent

firms in the agriculture, forestry and fishing sector who received government support, 77 per cent received cash transfer and 60 per cent received subsidized loans.

The result reveals that about 96.5 percent of firms have not received the government support mostly as a result of lack of awareness of the support, application process being difficult and eligible to apply. This indicates that there is a need to increase awareness and clarity on eligibility criteria for the program.

Deferral of rent, mortgage or utilities was the support received by firms mining and quarrying subsector while firms in the electricity and water supply sub-sector received subsidized loans and tax deferral respectively. Deferral of rent, mortgage or utilities was the most common government support received by firms across the sectors.

APPENDIX A

QUESTIONNAIRE

COVID-19 BUSINESS TRACKER QUESTIONNAIRE

Introduction

The purpose of the COVID-19 Business Tracker is to identify and measure the impact of the COVID-19 pandemic response on business operations and performance (profit and growth), innovative actions being taken by businesses to mitigate the impact, and actions being undertaken to prepare for business recovery post COVID-19.

This is a growing partnership, please join so that together we can help understand the impact of COVID-19 on businesses and inform mitigation and recovery measures. The Business Tracker is targeted at private businesses and will be panel in nature, meaning we expect to come back to you for further information to understand impacts over time.

CONFIDENTIALITY OF INFORMATION

All information supplied is confidential under the Statistical Service Act 2019 (Act 1003). The information shall be used by the Statistical Service in the preparation of statistics in accordance with the Statistical Service Law. The information provided shall not be used for the purpose of taxation.

We request that the contact person is the **owner or managing director** or an authorized person of the establishment.

Establishment reference number							
Name of contact person	A1						
Name of establishment	A2						
Position of contact person	A3	1= Owner, CEO, or CFO 2= Manager 3 = Accountant or lawyer 4 = Other (specify)					
Contact information (phone)	A4	Phone					
	A4a	Alternative phone number					
Contact information (email)	A5	Email					
	A5a	Alternative email					
Town name	A6	City					
District name	A7						
Region name	A8	01. Western 02. Central 03. Greater Accra					

PART A: IDENTIFICATION AND CLASSIFICATION

		04. Volta
		05. Eastern
		06. Ashanti
		07. Western North
		08. Ahafo
		09. Bono
		10. Bono East
		11. Oti
		12. Northern
		13. Savannah
		14. North East
		15. Upper East
		16. Upper West
In what year did the	40	Voor
in what year did the	AJ	1 cai
establishment commence		
business/operation		
Does the establishment keep	A10	0. No
some form of records or		1. Yes
some form of feedras of		1. 105
accounts?		
Is this antempies registered with	A 1 1	(multiple records as)
is this enterprise registered with	AII	(inutiple responses)
any government agency?		a. No
		b. Yes, Registrar General's Department
		c. Yes. Department of Cooperatives
		d Ves District Assembly
		U. Tes, District Assembly
		e. Yes, Ghana Revenue Authority
		f. Other (specify)
Nationality of ownership	A12	1. Foreign
I I I I I I I I I I I I I I I I I I I		2 Ghanajan only
		2. English and Changing
		3. Foreign and Ghanaian
Type of legal organization (e.g.	A13	1. Sole proprietor
Limited Liability Co.,		2. Partnership
Partnership etc.)		3 Limited liability
r arthorship etc.).		5. Associations (NCO ato)
		5. Associations (NGO etc)
		6. Other (Specify)
Is your business owned by 50	A14	0. No (less than 50% female ownership)
normant or more hy warrang	1117	1 Vos (50% or more female ownership)
percent or more by women?		1. Yes (50% or more remate ownership)
Is the manager or owner (or any	A15	0. No
among the managers or owners)		1. Yes
a parson with a disability?		
a person with a disability?		
In which socior/industry is your	A16	1 Agriculture forestry and fishing
in which sector/industry is your	AIU	2. Mining and cuerring
business? We are interested in		2. Winning and quarrying
the main		3. Manufacturing
		4. Electricity, gas, steam and air conditioning supply
		5. Water supply; sewerage, waste management and
		remediation activities
		6. Construction
		7. Wholesale and retail trade: repair of motor vehicles and
		motorcycles
		8 Transportation and storage
		o. Transportation and storage
		9. Accommodation and food service activities

		10. Information and communication
		11. Financial and insurance activities
		12. Real estate activities
		13. Professional, scientific and technical activities
		14. Administrative and support service activities
		15. Public administration and defence; compulsory social
		security
		16. Education
		17. Human health and social work activities
		18. Arts, entertainment and recreation
		19. Other service activities
		20. Activities of households as employers;
		undifferentiated goods- and services-producing activities
		of households for own use
What type of product or service	A17	Text
represents this establishment's largest share of annual sales?		(Product with largest share of annual sales)

PART B: IMPACT OF COVID-19 ON BUSINESS OPENING / CLOSING

What is the current operational status of this establishment?	B1	1=Fully open 2= Temporarily partially closed 3 = Temporarily fully closed 4 = Permanently fully closed
During the lockdown period , what was the operational status of this establishment?	B2	1=Fully open 2= Temporarily partially closed 3 = Temporarily fully closed 4 = Permanently fully closed
For how many weeks has (or did) this establishment (been) closed? CONDITION: Ask only if B2=2 OR B2=3 OR B2=4	B3	Number of weeks Still closed 9999 = Don't know
When are you expecting that this business will resume its full operations? CONDITION: Ask only if B1=2 OR B1=3 OR B1=4	B4	1 = Less than 2 weeks 2 = Between 2 and 4 weeks 3 = Between 1 and 2 months 4 = Between 2 and 6 months 5 = More than 6 months 9= Don't know (spontaneous)

PART C: IMPACT OF COVID-19 ON LABOUR FORCE

How many workers did this establishment have on Jan 15, 2020? (Include unpaid workers, apprentices)	C1	Number of	workers
What was the total share of female workers on Jan 15, 2020?	C2	% Women	
What was the total share of paid workers on Jan 15, 2020?	C3	% Paid work	ers
Question: Since the first case in Ghana ((March 14), h	now many workers w	vere: C4	Answer

INSTRUCTION: Consider all workers (full time and part time). Use absolute values (number of workers)		
Fully engaged	C4a	Numbers
Hired (new)	C4b	Numbers
Permanently laid off	C4c	Numbers
Temporarily laid off without payment (e.g. unpaid leave)	C4d	Numbers
Temporarily laid off with full or partial payment	C4e	Numbers
Of those who are continuing to work , since the first case in Ghana, how many workers have	C5	
INSTRUCTION: Both can apply, so a worker who had both their salary and hours reduced, should be counted under both.		
Had their salary, wages, or benefits reduced	C5a	Numbers
Had their hours reduced	C5b	Numbers
Working from home	C5c	Numbers

PART D: IMPACT OF COVID-19 ON BUSINESS OPERATIONS

What was the value of total monthly sales in			
March 2019 (March last year)	D1	Number	Unit of sales
	D1_unit	(value of	1. Cedis
Please provide an estimate if an exact figure is not available.		sales)	2. Dollar
When sales are not made within the reference month, sales			3. Euro
equal zero.			4. Pound
April 2019 (April last year)	D2	Number	Unit of sales
	D2_unit	(value of	1. Cedis
Please provide an estimate if an exact figure is not available.		sales)	2. Dollar
When sales are not made within the reference month, sales			3. Euro
equal zero.			4. Pound
What was the value of total monthly sales in			
(Please provide an estimate if an exact figure is not available.)			
March 2020	D2a	Number	Unit of sales
When sales are not made within the reference month, sales	D2a_unit	(value of	1. Cedis
equal zero.		sales)	2. Dollar
			3. Euro
			4. Pound
April 2020	D2b	Number	Unit of sales
When sales are not made within the reference month, sales	D2b_unit	(value of	1. Cedis
equal zero.		sales)	2. Dollar
			3. Euro
			4. Pound

Question: Since March 14 (the first COVID-19 case in		
Ghana), what happened to this establishment with respect to:		
CONDITION: Ask only if B1=1 or B1=2 (business is open)	D2	
OR B3<4 (business was closed for less than 4 weeks)	D5	
Total hours worked per week?	D3a	1 = Increase
		2 = Decrease
		3 =
		Remain the same
Demond for products and services?	D2b	1 – Ingraage
Demand for products and services?	D30	1 - Increase
		2 - Decrease
Exports?	D3c	1 - Increase
LAPOITS:	DSC	2 - Decrease
		3 - Remain the same
		4 = I am not exporting
Cash flow availability?	D3d	1 - Increase
	Dou	2 - Decrease
		3 = Remain the same
Supply of financial services normally available (e.g. loans, credit	D3e	1 = Increase
lines)?	200	2 = Decrease
11103):		3 = Remain the same
Supply of inputs, raw materials, or finished goods and materials	D3f	1 = Increase
purchased to resell? (including imports)	201	2 = Decrease
F		3 = Remain the same
Imports in particular?	D3g	1 = Increase
	8	2 = Decrease
		3 = Remain the same
		4 = I am not importing
What was the main reason for the reduction in the supply of	D4	1 = Not available (due to lockdown)
inputs, raw materials, or goods to resell?		2 = Not available (due to other reasons)
INSTRUCTION: choose all that apply		3 = Cost increased
CONDITION: Ask only if D3f =2		4 = Lower quality
		5 = Others, specify
What share of inputs did you import last year?	D5	Share (%)
(If none, put zero)		9 = Don't know
(Please provide an estimate if an exact figure is not available.)		
CONDITION: IF D3g is not 4.		
What share of sales did you export last year?	D6	Share (%)
		9 = Don't know
(If none, put zero)		
(Please provide an estimate if an exact figure is not available.)		
CONDITION: IF D3c is not 4.		
IF IMPORTING: Compared to same month last year, by what	D7	Percentage (%)
percentage did imports change?		Snouid be positive or negative
(Please provide an estimate if an exact figure is not available.)		
CONDITION: IF D3g is not 4.		

IF EXPORTING: Compared to same month last year, by what percentage did exports change?(Please provide an estimate if an exact figure is not available.)CONDITION: IF D3c is not 4.	D8	Percentage (%) Should be positive or negative
Question	Variable	Answer
As of today, for how many days could this establishment continue paying all costs and payments (such as payroll, suppliers, taxes or loan repayment) with the cash available?	D9	Number of days 0 = No cash available
Does your establishment have a loan, line of credit, or overdraft from a financial institution?	D10	0= No 1= Yes 9 = Don't know (spontaneous)
Has your financial institution tightened the terms (increased interest rate, reduced credit limit, increased collateral) of such loan, line of credit, or overdraft changed since March 15 (the first case in Ghana)?	D11	0= No 1= Yes 9 = Don't know (spontaneous)

PART E: IMPACT OF COVID-19 ON BUSINESS TURNOVER

Comparing this establishment sales for the last 30 days (before this interview) with the same period in 2019, did the sales? CONDITION: Ask only if B1=1	E1	1= Increase 2=Remain the same 3=Decrease 9=Don't know (spontaneous)
Increased by how much? CONDITION: Ask only if E1=1	E2	(%) change
Decreased by how much? CONDITION: Ask only if E1 =3	E3	(%) change

PART F: EXPECTATIONS – MODULE FOR MICRO FIRMS (1-5 persons engaged):

Looking ahead to the next <u>3 months</u> do you expect that your monthly average sales will increase, decrease, or remain the same, compared to the same period last year? ALTERNATIVE FORMULATION IF FIRM HAS BEEN IN EXISTENCE FOR LESS THAN 12 MONTHS Looking ahead to the next <u>3 months</u> do you expect that your monthly average sales will increase, decrease, or remain the same, compared to the last 3 months?	F1	1= Increase 2=Decrease 3=Remain the same 9=Don't know
By what percentage? ASK FOR F1=1 OR F1=2 AND SHOULD NOT BE ZERO	F2	% change

Looking ahead to the next <u>3 months</u> do you expect that your number of employees will increase, decrease, or remain the same, compared to the same period last year? ALTERNATIVE FORMULATION IF FIRM HAS BEEN IN EXISTENCE FOR LESS THAN 12 MONTHS	F3	1= Increase 2=Decrease 3=Remain the same 9=Don't know
Looking ahead to the next <u>3 months</u> do you expect that your number of employees will increase, decrease, or remain the same, compared to the last 3 months?		
By what percentage do you expect this to increase? ASK FOR F3=1	F4a	Percentage
By what number do you expect this number to decrease? ASK FOR F3=2	F4b	Percentage

PART G: EXPECTATIONS – FOR LARGER FIRMS

You are going to answer questions on three scenarios which probabilities should add up to 100%.

These are regular situation, pessimistic situation and optimistic situation (G3+G6+G9=100%).

Thinking about what is most likely to happen, looking ahead to the next 3 months, based on the current situation ...

What is the expected change in sales / revenue that you anticipate for this establishment compared to the same period last year?	G1	% Percentage change (can be positive or negative)
What is the approximate change in employment that you anticipate for this establishment compared to the same period last year?	G2	% Percentage change (can be positive or negative)
On a scale of 0 to 100, what is the chance (probability) you believe this will happen?	G3	probability % (between 0 and 100)

INSTRUCTION: As you know, sometimes businesses don't go as we expect, given that businesses can go better or worse, let us talk about these possible alternative situations:

Let's now think about a **pessimistic scenario**, if things will be worse than you are currently expecting based on the current situation.

Looking ahead to the next 3 months...

What is the expected change in sales / revenue	G4	% Percentage change
that you anticipate for this establishment compared to the same period last year?		(can be positive or negative)

What is the approximate change in employment that you anticipate for this establishment compared to the same period last year?	G5	% Percentage change (can be positive or negative)
On a scale of 0 to 100, what is the chance (probability) you believe this will happen?	G6	probability % (between 0 and 100)

Let's now think about an **optimistic scenario**, if things will be better than you are currently expecting based on the current situation.

Looking ahead to the next 3 months...

What is the expected change in sales or revenue that you anticipate for this establishment compared to the same period last year?	G7	% Percentage change (can be positive or negative)
What is the approximate change in employment that you anticipate for this establishment compared to the same period last year?	G8	% Percentage change (can be positive or negative)
On a scale of 0 to 100, what is the chance (probability) you believe this will happen?	G9	probability % (between 0 and 100)

PART H: MITIGATING MEASURES

Has this establishment started using or increased the use of mobile money in their business in response to COVID-19 outbreak?	H1	0=No 1 = Yes. It started. 2 = Yes. It increased.
Has this establishment started using or increased the use of internet, online social media, specialized apps, digital platforms or online banking in response to COVID-19 outbreak?	H2	0=No 1 = Yes. It started. 2 = Yes. It increased.
For which of the following business functions has this establishment started using or increased the use of internet, online social media, specialized apps or digital platforms in response to COVID-19 outbreak? INSTRUCTION: Choose all options that apply SKIP IF H2=0	НЗ	 (multiple response) a = Sales b = Marketing (advertisement) c = Payment methods (e.g., online banking) d = Business Administration e = Production planning and management f = Supply Chain Management g = Other service delivery
What was the share of sales or revenue of this establishment that was done online (including online platforms, apps or own website) before March 12, 2020 (the first case in Ghana)?	H4	Share (%)

What is the current share of sales or revenue of this establishment is done online (including online platforms, apps or own website)?	Н5	Share (%)
Are you experiencing any challenges with working online?	H6	0. No 1. Yes
What challenges? (multiple response) SKIP IF H6=0	H7	 (multiple response) a. Network problems, including network failures b. Lack of electricity or power outages c. Unfamiliarity with how the internet works d. Concerns about safety or privacy e. Costs of using internet f. My clients or customers cannot use the internet or prefer face-to-face g. The nature of my services or products cannot be provided through the internet
Do you have any Force Majeure in any of your contracts?	H8	0. No 1. Yes 9. Don't know
If YES: Have you applied the Force Majeure in your contracts?	Н9	0. No 1. Yes

PART I: POLICIES

What would be the most needed policies to support this	I1	(multiple response)
business over the COVID-19 crisis?		- Cash Transfer
		a = Casn Transfer
CONDITION: Choose up to three options		b= Deferral of rent, mortgage, or unifies
		c = Determinant of credit payments, suspensionof interact payments, or rollower of debt
		d = Access to new credit
		e - Loans with subsidized interest rates
		f = Fiscal exemptions or reductions
		g = Tax deferral
		h = Wage subsidies
		i = Training or advisory services (excl. IT)
		j = Training or advisory services for IT
		k = Formalization of business
		1=Others [Please specify]
Since the outbreak of COVID-19, has this establishment	I2	0 = No
received any national or local government support issued in		1=Yes
response to the crisis?		
Did any of these support measures involve any of the	13	(multiple response)
following:		a – Cash Transfer
INSTRUCTION: Choose all that apply		h = Deferral of rent mortgage or utilities
into incoeriory. Choose an unat appry		c = Deferral of credit payments, suspension
CONDITION: Ask only if I2 = 1.		of interest payments, or rollover of debt.
		d = Access to new credit
		e= Loans with subsidized interest rates
		f = Fiscal exemptions or reductions

		g= Tax deferral h = Wage subsidies i = Training or advisory services (excl. IT) j = Training or advisory services for IT k = Formalization of business l=Others [Please specify]
Which of the following options best describe the reason why this establishment did not receive any national or local government support issued in response to the crisis? CONDITION: Ask only if I2 = 0	I4	 1 = I was not aware 2 = Too difficult to apply 3 = I am not eligible. 4 = I have applied but not received it 5 = I did not apply because I am not expecting to get it 6 = Other (specify)

APPENDIX B

LIST OF PROJECT PERSONNEL

PROJECT DIRECTORATE

Prof. Samuel Kobina Annim, Project Director and Government Statistician Mrs. Araba Forson, Deputy Project Director and Acting Deputy Government Statistician Mr. Francis Bright Mensah Project Coordinator Mr. Anthony Krakah, PIT Member Mr. Isaac Dadson, PIT Member Mr. Patrick Adzovor, PIT Member Dr. Raymond E. Kofinti , PIT Member Mr. Isaac Odoom, PIT Member Mrs. Deborah Ofori, Project Accountant Mr. Jonathan Gogovie, Project Driver

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