International Journal of Economics, Commerce and Management
United Kingdom ISSN 2348 0386 Vol. VIII, Issue 5, May 2020

http://ijecm.co.uk/

COVID-19 PANDEMIC AND ACCOUNTING SYSTEM OF LISTED COMPANIES IN NIGERIA

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Abstract

This study is an investigation of the impact of Covid-19 pandemic on accounting system in Nigeria. To achieve this objective, hypotheses were formulated and literature was reviewed. The population of the study consisted of sixteen listed non-financial companies whose reporting date is other than 31st December. The data for this study, which were obtained from the companies' annual reports of 2018 were analysed using the mean and probit regression of the Generalized Linear Model. The findings of the study revealed that as a result of Covid-19 lockdown, an estimated amount of about ₦4.5 billion revenue will be lost, operating expenses will be increased by about ₦233 million, and credit collection will be delayed for 6 months. It was further gathered that Covid-19 pandemic has made no significant impact on accounting system of listed non-financial companies in Nigeria. Based on the above, it was recommended that companies should obtain business interruption insurance policy that will provide coverage for revenue loss; banks should support affected companies affected by extending the repayment period of existing loans or reduced interest rates on new loans; management should place restrictions on discretionary spending; and the Emergency Economic Stimilus Bill should immediately be passed into law.

Keywords: Covid-19, pandemic, accounting system, listed companies, Nigeria

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INTRODUCTION

Covid-19 is an acronym for corona virus disease that occurs in 2019. It is caused by severe acute respiratory syndrome (SARS), which starts from Wuhan in China to other parts of the world. From January 2020, the disease has developed rapidly with a significant number of infections globally. As at 20th April 2020, statistics show that the number of infected cases is 2467542 with death toll of 169398 globally. In Nigeria, a total of 627 infected cases with 21 deaths have been recorded, including the death of the chief of staff to the President, Mallam Abbah Kyari on 17th April, 2020 (Nigeria Centre for Disease Control, 2020).

Omowale (2020) states that governments around the world have reacted to the impact of Covid-19 pandemic with a variety of measures to prevent transmission of the disease, which include limiting the movement of people, restricting flights and other travels, temporary closure of schools and businesses particularly for non essential services, suspending social, cultural and religious events, self isolation and social distancing. Measures taken to contain the deadly disease have affected economic activity. Prestegord (2020) posits that the measures have also begun to affect supply chains and the production of goods throughout the world and lower economic activity is likely to result in reduced demand for many goods and services. Financial services entities such as banks that lend to affected entities, insurers that provide protection to affected individuals and businesses, and investors that invested in affected entities are all likely to be affected. The impact is perceived to be significant for many businesses. The focus of most businesses is now on protecting employees, understanding the risks of the business, and managing the supply chain disruptions caused by the effort to contain spread of the pandemic (Jim, Jason & Lee, 2020).

The measures taken by various governments to contain the spread of Covid-19 pandemic have implications on accounting and financial reporting, particularly in areas that are subject to management judgements and estimation uncertainty such as assets impairments, hedge accounting, credit loss assessments, accounting estimates, fair value measurements, breaches of debt covenants and other financial statement disclosure requirements. To collaborate the above, the Financial Reporting Council of Nigeria (2020) offers companies an additional time to document and review audit engagements in order to ensure quality audit due to the measures taken by Federal and State Governments to contain the spread of Covid-19. It is therefore imperative that business entities consider the implications of these developments on their accounting system.

Considering the business period in which Covid-19 pandemic occurs, it is important that management determines the accounting implications of the virus for December 2019 year ends and other reporting dates other than 31st December in the context of IAS 10," events after the

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reporting period". IAS 10 views event after the reporting period as whether it is an adjusting event or non-adjusting event for financial reporting purpose. IAS 10 defines an adjusting event as an event that provides evidence of conditions that existed at the reporting date. A non-adjusting event indicates conditions that arose after the reporting date. The situation at 31 December 2019 was that a limited number of cases of an unknown virus had been reported to the World Health Organisation (WHO). There was no explicit evidence of human-to-human transmission at that date. These are the conditions that existed at 31 December. The subsequent spread of the virus and its identification as a new Covid-19 does not provide additional evidence about the situation that existed at 31 December 2019 (Prestegord, 2020). Management must therefore ensure that assets and liabilities that reflect only the conditions that existed at the reporting date are measured. Subsequent developments should not be reflected in the measurement of any asset or liability measured at fair value. Johnson (2017) notes that events after the reporting date sometimes provide additional information about the uncertainties that existed at the reporting date. A reporting date is the last date of the financial period, which lasts for twelve (12) months. There are two common types of reporting date for businesses: the Gregorian calendar year and the fiscal year. While the Gregorian calendar year consists of twelve months starting from 1st January to 31st December, the fiscal year refers to annual period that does not end on 31st December (Ryan, Parissi, Diaz & Torres, 2017). It could be from 1st April 2019 to 31st March 2020.

It has been observed that listed companies in Nigeria do not have the same reporting date. Majority of the companies use the Gregorian calendar year while some use the fiscal year. For companies whose reporting date is 31st December, the impact of Covid-19 pandemic is a non-adjusting event but for those whose reporting date is other than 31st December, it is an adjusting event. For example, where the reporting date of a company is 31st March 2020, the event that happens after 31st December 1999 is not a post balance sheet event; hence it is an adjusting event that should reflect in financial statements of the company. Ryan, Parissi, Diaz, and Torres (2017), the nature of any material non-adjusting event and an estimate of its financial effect must however be disclosed by way of note. More so, companies whose cash flow and liquidity is adversely and significantly affected by Covid-19 pandemic either as a result of prolonged plant closures, significant delays or the inability to collect from counterparties whose businesses are severely affected by Covid-19 scourge, need to consider the going concern issues. Management is required to evaluate the entity's ability to continue as a going concern within one year after the date the financial statements are issued (or available to be issued, when applicable). They need to consider running several possible sensitivity analyses to determine whether there is any material uncertainty on its ability to continue as a going concern.

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This can result in additional disclosures especially if there is a material uncertainty. Deloitte and Touche (2017), opine that "disclosures in the notes to the financial statements are required if management concludes that substantial doubt exists. Management is required to make its evaluation and provide the relevant disclosures for both annual and interim reporting periods". Accordingly, management may need to update the cash flow projections it uses in its going concern evaluation. In some circumstances it may be necessary to consider whether it is appropriate to prepare the accounts on a going concern basis.

Covid-19 pandemic lockdown leaves no sector unaffected in the entire world. It has become a global phenomenon impacting individuals, families, businesses, and economies across the globe. It has resulted in loss of revenue, increased operational costs, and delay in credit collections by businesses across the globe (Debell, 2020). As reported by Jim, Jason, and Lee (2020) a survey jointly conducted by Tsinghua University and Peking University estimates that 85% of Small and Medium-Scale (SMEs) in China will run out of cash within three months, and approximately 67% will run out of money in two months if Covid-19 pandemic does not abate. The Securities and Exchange Commission (SEC), a body regulating the operations of listed companies in Nigeria allows companies a maximum of three (3) months after the reporting date to release their corporate annual report. Therefore, it is important to also incorporate a comprehensive post balance sheet review in the year-end reporting plan for events that occur up to the date when the financial statements are authorised for issue together with the adjusting events (Iyoha, 2009).

In view of the above, management is expected to carefully consider the implications of Covid-19 on accounting system of their company. However, it is on record that most of the prior studies on Covid-19 pandemic such as Adegite and Abu (2020) and Onyekwena and Ekeruche (2020) examine its impact on business and economic activities without any particular emphasis of its lockdown on accounting system of companies. The few available prior studies such as Omowale (2020), Debell (2020), and KPMG (2020) which examine the consequences of Covid-19 pandemic on accounting and financial reporting are theoretically and therefore lack any empirical evidence. It is upon this premise that this present study tends to conduct an empirical investigation of the impact of Covid-19 pandemic lockdown on accounting system of listed companies in Nigeria. To achieve this objective, the following hypotheses were formulated:

Ho1: Revenue loss as a dimension of Covid-19 lockdown has no significant impact on accounting system of listed companies in Nigeria.

Ho2: Increased operating expenses as a dimension of Covid-19 lockdown has no significant impact on accounting system of listed companies in Nigeria.

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Ho3: Credit collection delay as a dimension of Covid-19 lockdown has no significant impact on accounting system of listed companies in Nigeria.

LITERATURE REVIEW

Covid-19 is a corona virus disease, which is caused by the severe acute respiratory syndrome (SARS). The first confirmed case of the pandemic occurs in Wuhan, China in December 2019 and spread gradually to other countries of the world. The index case of Covid-19 in Nigeria was announced on 27 February 2020, when an Italian citizen in Lagos tested positive for the virus. On 9 March 2020, a second case of the virus was reported in Ewekoro, Ogun State, a Nigerian citizen who had contact with the Italian citizen. Thereafter, other notable Nigerians and politicians were reported to have contacted the disease (Nigeria Centre for Disease Control, 2020).

On 28 January 2020, the Federal government of Nigeria assured citizens of the country of its readiness to strengthen surveillance at five international airports in the country to prevent the spread of disease. The government announced the airports as Enugu, Lagos, Rivers, Kano and the FCT. The Nigeria Centre for Disease Control also announced same day that they had already set up Covid-19 group and was ready to activate its incident system if any more case emerged in Nigeria. On 31 January 2020, following the developments of Covid-19 pandemic in mainland China and other countries worldwide, the federal government of Nigeria set up a Coronavirus Preparedness Group to mitigate the impact of the virus if it eventually spread in the country (Nigeria Centre for Disease Control, 2020). However, the World Health Organization (WHO) has listed Nigeria among other 13 African countries identified as high-risk for the spread of the Covid-19.

As Covid-19 pandemic is becoming more widespread, Omowale (2020) claims that governments around the world have taken the bull by the horn with a variety of measures to prevent transmission of the virus, which include limiting the movement of people, restricting flights and other travels, schools closures, temporarily closing businesses particularly for non essential services, cancelling events, and maintaining social distancing. Measures taken to contain the deadly disease have affected economic activity. It is important that management consider the impact of Covid-19 on the accounting system of their business.

Akenbor (2016) defines accounting system as organizations' resources and procedures that interact and interrelate with each other to developing accounting information, and communicating same to users. It allows a business to keep track of all financial , including purchases (expenses), sales (invoices and income), liabilities (funding, account payables), among others, and is capable of generating comprehensive statistical reports that provide

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management or interested parties with a clear set information to aid in the decision making process (Wilson & Sangster, 2010). Mukharji and Hanif (2001) describe an accounting system is a collection of processes, procedures and controls designed to collect, record, classify and summarize financial data for interpretation and management decision-making.

In the course of developing accounting information, management at times uses judgements and estimations, and therefore a number of accounting implications can arise as a result of Covid-19 pandemic lockdown from such subjective measures. The implications may include revenue loss, assets impairment, insurance recoveries, hedge accounting, increase in cost of operation, credit loss assessments, among others.

Revenue Loss

An entity's sales and revenue might decline as a result of the reduced economic activity following the steps taken globally to control the virus (Jim, Jason & Lee 2020). This is accounted for when it happens. However, there could also be an effect on the assumptions made by management in measuring the revenue from goods or services already delivered and in particular on the measurement of variable consideration. For example, reduced demand could lead to an increase in expected returns, additional price concessions, reduced volume discounts, penalties for late delivery or a reduction in the prices that can be obtained by a customer. All of these could affect the measurement of variable consideration. IFRS 15 Revenue from contracts with customers requires that variable consideration is recognised only when it is highly probable that amounts recognised will not be reversed when the uncertainty is resolved. Management should reconsider both its estimate of variable consideration and whether the recognition threshold is met. IFRS 15 is applied only to those contracts where management expects its customer to meet its obligations as they fall due. Management might choose to continue to supply a customer even when it is aware that the customer might not be able to pay for some or all the goods being supplied. Revenue is recognised in these circumstances only when it is probable that the customer will pay the transaction price when it is due net of any price concession. IFRS 15 requires that an entity disclose information that allows users to understand the nature, amount, timing and uncertainty of cash flows arising from revenue. This might require for example, information about how an entity has applied its policies taking into account the uncertainty that arises from the virus, the significant judgments applied, for example whether a customer is able to pay, and the significant estimates made, for example in connection with variable consideration (Omovieye, 2020).

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The Covid-19 outbreak could also affect revenue estimates in new and ongoing customer contracts in the scope of ASC 606, "Revenue from Contracts with Customers". This is because when a contract with a customer includes variable consideration (e.g., discounts, refunds, price concessions, performance bonuses and penalties), an entity is generally required to estimate, at contract inception, the amount of consideration to which it will be entitled in exchange for transferring promised goods or services (Omovieye, 2020). The amount of variable consideration an entity can include in the transaction price is constrained to the amount for which it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainties related to the variability are resolved. An entity that makes such an estimate is also required to update the estimate throughout the term of the contract to depict conditions that exist at each reporting date. This will involve updating the estimate of variable consideration (including any amounts that are constrained) to reflect an entity's revised expectations about the amount of consideration to which it expects to be entitled, considering uncertainties that are resolved or new information about uncertainties related to the Covid-19 outbreak. Johnson (2017) notes that estimation of variable consideration and the constraint may require entities to exercise significant judgment and make additional disclosures. For example, an entity is required to disclose information about the methods, inputs and assumptions used for estimating variable consideration and assessing whether an estimate of variable consideration is constrained. Entities should also consider the requirements to disclose the judgments and changes in judgments that significantly affect the determination of the amount and timing of revenue. Jim, Jason and Lee (2020) claim that companies may anticipate losses that are directly or indirectly related to the current outbreak of Covid-19. These might include losses related to significant reduction in demand, supply chain disruptions and losses due to an overall decline in economic output. There may be less demand for some goods, which in turn may create pressure on sales prices and / or result in less inventory turnover, thus leading to additional write-downs to net realizable value. As the economic outlook deteriorates and the company's earnings decline, recoverability of any recognized deferred tax assets need to be carefully verified.

Credit Collection Delay

Receivables and loans from entities impacted by Covid-19 lockdown might be at risk for collectability (Jim, Jason & Lee 2020). It is important that management evaluate whether and to what extent the coronavirus pandemic affects the collectibility of their receivables and contract assets. AS reported by Jang, Mark, and Llodys (2019) expected credit losses are based on information about past events, current conditions and the prediction of future economic

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conditions. Economic difficulties of customers and the negative economic outlook in general may require an increase in the provision for expected credit losses of financial assets. If the financial situation of the company deteriorates, financial covenants may be triggered. As a consequence, the financial liabilities will become immediately repayable. If this cannot be remediated before the reporting date, classification of the respective financial liabilities as current liabilities is required, regardless of the remaining contractual term. Liabilities previously meeting the definition of a contingent liability may need to be reconsidered and recognized on the statement of financial position. The financial statements are based on the information that was reasonably available as of the reporting date. As such, only information that provides evidence of the conditions that existed at the end of the reporting period can be considered. Are there any consequences from non-adjusting events? Yes, material non-adjusting events are to be disclosed in the notes to the financial statements. This includes a description of the implications of the Covid-19 and any actions taken by governments and the private sector to respond to the outbreak that have an impact on the company's financial situation (Financial Reporting Council of Nigeria, 2020). If possible the financial effect should be disclosed. For example, disclosure of estimated effects on impairments of financial and non-financial assets, covenant breaches, amendments, or waivers in lending agreements, losses due to supply chain issues, volatility in commodities or foreign currency exchange markets after the reporting date may be required. It may also be necessary to provide sensitivity information on possible value changes. Non-adjusting events may also impact information provided in the management commentary (if the company prepares one).

What about the going concern assumption? Does the concept of adjusting vs. non-adjusting event apply for this assumption as well? No, the concept of adjusting vs. non-adjusting event does not apply to the going concern assumption (Jim, Jason & Lee 2020). Management needs to assess whether the current events and conditions cast significant doubt on the company's ability to continue as a going concern, or in severe cases, whether the going concern assumption is still appropriate as a basis for the preparation of the company's financial statements (or interim reporting). If the conclusion is that the consequences of the Coronavirus outbreak have led to a deterioration of the financial situation after the reporting date that is so severe that the going concern basis of preparation is no longer considered appropriate, the financial statements (or interim reporting) would need to be adjusted. This will require application of the general measurement, recognition and disclosure requirements, with particular attention paid to the requirements for assets that are being held for sale, the classification of the company's debt and equity instruments, impairment testing and recognition and measurement of provisions. To the extent that events and conditions are identified that may

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cast significant doubt on a company's ability to continue as a going concern, disclosure would be required if these events constitute material uncertainties or management's conclusion involves significant judgment (KPMG, 2020).

Deloitte and Touche (2017) note that instruments to be considered include loans, trade and other receivables, debt instruments not measured at fair value through profit or loss, contract assets, lease receivables, financial guarantees and loan commitments. It is important to consider the impact of Covid-19 on both: whether the expected credit loss (ECL) is measured at a 12-month or lifetime ECL. If the credit risk (risk of default) has increased significantly, since initial recognition the ECL is measured at the lifetime ECL rather than the 12-month ECL (except for assets subject to the simplified approach, such as short term receivables and contract assets, which are always measured using lifetime ECL); and the estimate of ECL itself. This will include all of the credit risk (risk of default). Companies affected by Covid-19 pandemic are therefore required to consider reasonable and supportable forecasts of future economic conditions in the estimate of expected credit losses. Such companies need to consider whether the effects of the outbreak could change their forecast of future economic conditions. In particular, disruption of supply chains and changes in demand may increase the likelihood of borrowers taking a longer time to repay amounts outstanding or the probability of borrowers being unable to repay their obligations when due. This may be particularly true for companies in industries or in geographies that have been affected by the Covid-19. While forecasted economic conditions may not significantly affect loss estimates for short-term receivables and contract assets when the economy is stable, we believe that entities affected by the Covid-19 pandemic may need to challenge these assumptions (Jang, Mark, & Llodys, 2019).

For example, this may increase if the debtor's business is adversely impacted by COVID-19; the amount at risk if the debtor defaults (exposure at default). For example, debtors affected by COVID-19 may draw down on existing unused borrowing facilities, or cease making discretionary over payments, or take longer than normal to pay resulting in a greater amount at risk; and the estimated loss as a result of default (loss given default). For example, this may increase if COVID-19 results in a decrease in the fair value of a non-financial asset pledged as collateral. Even when a borrower is expected to repay all amounts owed but later than contractually required, there will be a credit loss if the lender is not compensated for the lost time value of money. IFRS 9 requires that forward-looking information (including macro-economic information) is considered both when assessing whether there has been a significant increase in credit risk and when measuring expected credit losses. As noted by Omovieye (2020), the financial impact of the virus might cause some business entities to breach covenants on borrowings or trigger material adverse change clauses.

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Operating Expenses

Johnson (2017) describes operating expense as a day-to-day expense incurred in the normal course of business. They are costs associated with running a business's core operations on a daily basis. Common examples are cost of goods sold (COGS) and labor costs. Others are nonrecurring items (such as accounting adjustments, legal judgments, or one-time transactions). Essentially, operating expenses are the costs of keeping the business running, beyond direct materials and labour. They are expenses that are incurred in the natural course of business. These expenses appear on the income statement.

Mukharji and Hanif (2001) state that operating expenses are revenue in nature since these are incurred in the day-to-day operations of the business and do not incur on the non-current assets. The nature of the operating expenses is revenue. Therefore, these expenses are not capitalized. Unlike capital expenses that are incurred to support the operations of the business or in the extension of operations, these expenses are supporting in nature and are incurred to carry out the operations of the business. In short, all the expenses that are revenue in nature and have a supporting role in the operations of business are operating expenses. It is important to understand that the expenses incurred on the initial repairs of the asset to make it useable or the legal costs in the acquiring of assets are not operating expenses. Similarly, the costs incurred in the issuance of shares, debentures are also capital expenditures, and they cannot be treated as operating expenses and deducted from the income statement. Examples of operating expenses include things like: accounting fees, advertising and marketing, insurance, legal fees, license fees, office supplies, clean –up, maintenance and repairs, rent, salaries and wages (other than direct labor for production employees), depreciation expense, employee benefits, property taxes, travel, utilities, vehicle expenses, and employer contributions in the employee pension scheme (Johnson, 2017).

Deloitte and Touche (2017) note that operating expenses are included in the income statement of the company and are deducted from the gross profits to reach to the figure of net profit before interest and tax. Since these expenses are not associated with the production, they are reported as day-to-day expenses. In the income statement, these expenses are generally subdivided into selling, administration and general expenses. Operating expense is a key component in the calculation for operating income, and operating income is a crucial component of many financial measures. The higher a company's operating expenses are, the smaller is the profitability of the business. Mukharji and Hanif (2001) reveal several factors that can affect operating expenses such as pricing strategy, prices for raw materials, or labour costs, but because these items directly relate to the day-to-day decisions managers make, financial measures based on operating expenses are also measures of managerial flexibility and

competency, particularly during rough economic times. Expenses may equally arise from business interruption such as Covid-19 and other natural disasters.

Adegite and Abu (2020) are of the opinion that business entity forecast operating losses for a certain period after business interruption. Such losses may result from clean-up and repair costs (such as fumigation of the business premises as a result of Covid-19 outbreak) directly attributable to the event. Other losses may be indirectly related to the event, such as those resulting from declines in customer demand or disruptions in the supply chain. Clean-up costs, other than those that create an obligation in accordance with ASC 410-30 or that result in other litigation requiring an accrual in accordance with ASC 450, should not be recorded until incurred (i.e., when the clean-up takes place), even though such expenses could be triggered by the Covid-19 pandemic event. IAS 16 on property, plant and equipment requires that depreciation continues to be charged in the income statement while an asset is temporarily idle. Temporarily ceasing operations or suffering an immediate decline in demand or prices and profitability are clearly events that might indicate impairment. However, the impact of reduced economic activity and lower revenues are likely to affect almost any entity and might also indicate impairment (Wang & Robert, 2019). Some companies and auditors are facing practical difficulties in preparing accounts and carrying out audits as a result of Covid-19 pandemic lockdown. This is likely to affect how audit firms will audit those companies. Given increasingly restricted travel, meetings and access to company sites, auditors need to develop alternative audit procedures to gather sufficient appropriate audit evidence. This may likely increase accounting and auditing costs of operation. It is also important to note that some industries have higher operating expenses than others. This is why comparing operating expenses or income is generally most meaningful among companies within the same industry, and the definition of "high" or "low" expenses should be made within this context (Wang & Robert, 2019).

It is important to consider whether Covid-19 pandemic and the measures taken to control it are likely to increase business operating and other costs for the reasons described above.

Theoretical Framework

This study is anchored on the contingency theory for the design of accounting information system, which was postulated by Lawrence A. Gordon and Danny Millier in 1976. It explains the laid out of the basic framework for considering accounting information system from a contingency perspective. The theory states that an accounting information system should be designed in a flexible manner so as to consider the organizational structure and perceived

environmental uncertainty confronting the business. In other words, accounting system needs to be designed within adaptive framework.

Environmental uncertainty such as Covid-19 pandemic is a fundamental driver for designing an accounting system. As management who are decision makers perceives greater spread of Covid-19 pandemic, they tend to seek for more external, non-financial and ex ante information in addition to internal financial and ex post information in order to reflect present realities in financial reports and accounts.

METHODOLOGY

This study adopted the cross sectional survey research design, and the population of the study consists of sixteen (16) non-financial companies listed in the Nigerian Stock Exchange whose reporting date is from 31st January 2020.

In this study, the proxies used for Covid-19 pandemic lockdown are revenue loss, increased operating expenses, and credit collection delays, while accounting system was considered as a dummy variable as to whether Covid-19 lockdown is an adjusting or non-adjusting event for financial reporting purpose. This is as presented below:

Revenue Loss: This is measured as the estimated amount of revenue for the month of April when the lock down occurs in Nigeria. It is computed as annual revenue divided by 12.

Increased Operating Expenses: This is measured at an inflationary rate of 12.35% of the estimated operating expense for the month of April when the lock down occurs in Nigeria. The estimated operating expense is computed as annual operating expenses divided by 12.

Credit Collection Delay: This is measured as the average collection period, computed as the number of months in a year divided by debtors turnover. If the average collection period exceeds one month, there is said to be a delay in credit collection.

Accounting System: This is considered as a dummy variable taking the values of 1 or 0. Those companies whose reporting date is either 31st January 2020, 29th February 2020, or 31st March 2020 were not affected by the Covid-19 lockdown which started in April but have experienced the spread of Covid-19, would considered the impact of Covid-19 pandemic lockdown as a non adjusting event and therefore take the value of 0. Those companies whose reporting date exceeds 31st March were affected by the lockdown and therefore are required to adjust their accounts and financial statements. Such companies are assigned the value of 1.

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The data for all the variables in this study were obtained from the companies' annual reports of 2018. The data were analysed with both descriptive and inferential statistics using the arithmetic mean and the probit regression of the Generalized Linear Model (GLM). These were computed with the aid of the Statistical Package for Social Sciences (SPSS) version 23. The model specification for this study is given in functional form as:

ACS = f (REVLOSS, IOPEXP, ACP) -- (i)

In econometric form, the model becomes:

$ACS = \propto_o + \beta_1 REVLOSSi + \beta_2 IOPEXPi + \beta_3 ACPi + - - \mu i$ ----------------------- (ii)

Where:

ACS = Accounting system

REVLOSS = Estimated revenue loss for the month of April

IOPEXP = Increased operating expenses for the month of April

ACP = Average collection period for the credits of March

$\propto$ = Regression Constant

β = Regression Coefficient

μ = Stochastic term

ANALYSIS

Descriptive Statistics

The descriptive statistics describes the mean, minimum, maximum, and standard deviation of the distribution. Table 1 shows the descriptive statistics of the variables for the time period.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
REVLOSS	16	304.00	4522253	4503380	1132867
IOPEX	16	363.00	285768	232882	705894
ACP	16	0.00	39.20	6.1344	10.57672
ACS	16	0.00	1.00	0.8750	0.34157
Valid N listwise)	16				

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The descriptive statistics of the dependent and independent variables in the model are displayed in Table 1 above. During the lockdown period, the average value of revenue loss, increased operating expenses, and credit collection delay are ₦4,503,380,000, ₦232882625, and 6 months respectively. The mean values are closer to the maximum value, which implies that they are significantly higher than the minimum values. This suggests that for the lockdown period, an estimated amount of about ₦4.5 billion revenue will be lost, operating expenses will be increased by about ₦233 million, and credit collection will be delayed for 6 months. The mean value for accounting system (0.875) suggests that accounts and financial statements are to be reviewed and adjusted.

Test of Hypotheses

In an attempt to determine the predictive power of the effect of Covid-19 on accounting system of listed companies in Nigeria, the Probit Regression of the Generalized Linear Model (GLM) was used to examine the impact of Covid-19 on accounting system.

The data on revenue loss, credit collection delay and increased operating expenses were regressed against accounting system, and the results obtained are presented in the Table 2 below.

Table 2: Parameter Estimates

						Log likelihood = -5.5146587	
	Parameter	Estimate	Std. Error	Z	Sig.	Pseudo R^2	.1252
PROBIT[a]	Intercept	.840	.129	6.487	.000		
	REVLOSS	.241	.078	3.090	.002		
	IOPEXP	.003	.013	.233	.816		
	ACP	.093	.046	2.001	.050		

Table 3: Chi-Square Tests

		Chi-Square	df[a]	Sig.
PROBIT	Pearson Goodness-of-Fit Test	2.11	3	.199

As shown in Table 2 above, increase in Covid-19 pandemic lockdown in Nigeria will lead to about 24% increase in revenue loss, 0.3% (i.e less than 1%) increase in operating expenses, and 9.3% increase in credit collection delay of the listed non-financial companies in Nigeria. The coefficient of determination (R^2) of 0.1252 suggests that only about 12.52% of the review in

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accounting system is associated with the outbreak of Covid-19. Among the Covid-19 variables, it was discovered in this study that revenue loss has a significant impact on accounting system while increased in operating expenses has no significant impact. However, credit collection delay was found to be on a neutral position. Above all, the probability value for the multiple regression (0.199) as shown in Table 3 above, suggests that Covid-19 has made no significant impact on accounting system of listed non-financial companies in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The World Health Organization has characterized Covid-19 outbreak as a pandemic, which has claimed so many lives globally and rendered so many incapacitated. Measures taken by various governments across the globe to prevent transmission of the disease such as limiting the movement of people, restricting flights and other travel, temporarily closing businesses and schools, and cancelling events, have an immediate impact on businesses such as tourism, transport, retail and entertainment. It also affect supply chains and the production of goods throughout the world and lower economic activity is likely to result in reduced demand for many goods and services, which in turn have implications on accounting and financial reporting.

This study have shown that as a result of Covid-19 lockdown, an estimated amount of about ₦4.5 billion revenue will be lost, operating expenses will be increased by about ₦233 million, and credit collection will be delayed for 6 months in non financial companies listed in the Nigerian Stock Exchange. The finding of the study also reveal that increase in Covid-19 pandemic lockdown in Nigeria will lead to about 24% increase in revenue loss, less than 1% increase in operating expenses, and 9.3% increase in credit collection delay of the listed non-financial companies in Nigeria. The low percentage increase in operating expenses is probably due to the palliative measures provided by the various governments. In a nutshell, the study suggests that Covid-19 pandemic has made no significant impact on accounting system of listed non-financial companies in Nigeria. This implies that the review and adjustments to be made to accounts and financial statements of companies due to Covid-19 lockdown is not significant. This could be attributed to the fact that, in spite of the lockdown some companies used for the study operates on skeletal basis, while some, which are in the essential service sector were granted exemption by the governments.

In view of the above, the following recommendations are made:

(i) Companies are advised to obtain business interruption insurance policy that will provide coverage for revenue loss. Recoveries of revenue are not considered incurred losses but accounted for as gain contingencies. As a result, business interruption amounts related to lost revenue are not recorded at the statement of

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financial position (balance sheet) date unless proceeds have been received from the insurance claim. In addition, the insurance policy under business interruption may include reimbursement for temporary relocation or wages paid while the business was idle.

(ii) The Federal Government and regulatory agencies such as the Central Bank of Nigeria should direct commercial banks to support the non-financial companies affected by Covid-19 lockdown by extending the repayment period of existing loans or reduced interest rates on new loan. This is to enhance the liquidity position of the company while credit collections from customers are being delayed. Companies should consider impact of the extension on financial statements.

(iii) In a bid to reduce operating expenses, management of companies should place restrictions on discretionary spending like entertainment and training

(iv) The Emergency Economic Stimilus Bill proposed by the Nigerian law makers should immediately be passed into law without further delay. This is to cushion the effect of Covid-19 on operating expenses of companies.

In conclusion, we suggest that further studies in this area of knowledge be conducted by extending the time scope of the study to determine whether the results will significantly differ from this present study.

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