IMPACT OF EARNINGS QUALITY ON LIQUIDITY RISK OF MANUFACTURING SECTOR OF NIGERIA ECONOMY

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Abstract

Purpose: *To examine the impact of earnings quality on liquidity risk in the manufacturing sector of the economy in Nigeria. The amount of cash that an organization can collect after making sales is very crucial at this critical period in the Nigerian economy. The study aimed at investigating how earnings quality impacts the liquidity risk of the manufacturing sector in Nigeria. The primary objective was then decomposed into three secondary objectives that have bearing on liquidity risks such as operating cash flow ratio, cash ratio, and cash debt coverage ratio.*

Method: *Purposive sampling technique was employed to select ten manufacturing companies that are quoted on the Nigerian Stock Exchange based on their annual turnover for ten year period(2012-2020. Descriptive statistics were employed to assess whether the data are evenly distributed and asymmetrical while inferential statistics were used to test the hypotheses.*

Result: *Multicollinearity test based on Tolerance and VIF values showed that tolerance is above 0.10 and VIF value is below 10 which was an indication of the absence of multicollinearity. This is also supported by ANOVA where the p-value was 0.00 which is less than the conventional p-value of 0.05.*

Implication: *The regression analysis showed that the effect of OCFC and CADC on EARQ is statistically significant because the p-value is less than 0.05 while the effect of CASR on EARQ is not statistically significant because the p-value is greater than 0.05. The null hypotheses are that all the coefficients are equal to zero. That is, HO: $\beta1 = \beta2 = \beta3$. Therefore, hypotheses 1and 3 were rejected while hypothesis 2 was accepted.*

Key words: earnings, liquidity risk, cash ratio, multicollinearity, asymmetrical

Introduction

Accounting is based on the accrual concept that stipulates that revenues and expenses should be reported when earned and incurred respectively and not when received or paid. On the other hand, the cash basis of accounting postulates that revenues and expenses are recognized only and only when cash is received and when cash is paid respectively. Hence, accounting information based on the accrual concept is judged to be the best indicator of business success or failure. This is because the accrual basis of accounting makes recognition of receivable and payable possible. As good as the accrual concept is, the importance of cash flow cannot be overemphasized. For instance, a rapidly growing successful business can be profitable but may experience cash flow problems when trying to keep up with the need for expansion of facilities and inventories.

Furthermore, a business may appear to be profitable on an accrual basis but may be experiencing delays in collecting receivables and early payment for payable. This can impose severe liquidity constraints. It is possible for a business to be paying generous dividends, not because the fund is generated from operating activities, but only because cash is being produced and made available from the disposal of essential assets; which is cash generated from investing activities.

Since cash movement is a function of liquidity risk, therefore the quality of earnings is a measure of the collect-ability of receivables.So to reduce the possibility of liquidity problems, it is imperative on the part of the organization to ensure that receivables are collected when due to meet the financial obligation that might fall due without delay.

Liquidity is the ability of a business to meet its financial obligations as at when due. Current literature measured liquidity by current ratio and quick ratio. There are more

issues than   considering only the current assets and current liabilities. These conventional ratios only   consider current assets and current liabilities without taking into consideration cash generated from operating activities of the organization and how it affects both current liability   and total liability; that is, current liability plus non-current liability.

The content objective of this study is to examine the impact of earnings quality on liquidity

Literature review

Conceptual framework

Income, revenue, and earnings are probably the three most widely used concepts in accounting and finance. All the terms denote measures of a company's profitability. Although   they are defined differently, they are frequently confused with one another and more often   than not are used interchangeably.

Income; in other word net income is the amount of money a company retains by subtracting all   expenses connected with operations. Therefore, in the income statement; net income is known   to be the bottom line of a company's income statement. Therefore, the basic meaning of income is the amount of money an individual or an organization receives for selling goods or   providing services to a third party. Also, net income is used as a profitability index of a   company. The main advantage of net income compared with other profitability measures is   that it shows what amount of money a company can actually retain internally after taking into   consideration all operating as well as non-operating revenues and expenses. At the same time,   investors and analysts consider net income to a certain extent as a deceiving profitability measure that gives an inaccurate picture of the company's operating efficiency.On the other hand, revenue is the total amount of money a company garners from its primary activities/operations. It is the first line on a company's income statement. Hence, revenue is the total amount of money a company generates in the course of its normal business operations.   Most businesses earn their revenue by selling goods and/or services to their clients/customers.   Usually, revenue is reported in the income statement of a company. As a result, revenue can sometimes be referred to as the   top line. Revenue is the   most   basic   yet

important indicator of a company's profitability and its overall financial performance. It is a critical measure of financial performance that reveals how well a company can generate cash from its primary business operations. Generally, users of accounting information such as analysts and investors carefully carry out assessments of the company's revenues at different periods to discover the trend of growth. In some cases, the reliability of revenue can be questionable as the metric is prone to potential manipulation. For instance, the management of a company can review revenues upward by making use of an aggressive revenue recognition method as stipulated by International Accounting Standards under revenue/income recognition.

Earnings are the company's profits at a point in time. In other words, earnings represent the net income of a company. earnings can as well be referred to as the income of a company before tax. In such a context, there are many variations of earnings measures such as earnings before taxes (EBT), earnings before interest and taxes (EBIT), and earnings before interest, taxes, depreciation & amortization (EBTIDA). Also, companies commonly report earnings per share (EPS), which indicates their earnings on a per-share basis.

Earnings are considered one of the most critical determinants of a company's financial performance. For quoted companies, equity analysts make their own estimates of the company's anticipated earnings periodically (quarterly and annually). Quoted companies are interested in the difference between the actual earnings and the estimates provided by the analysts. For instance, in a situation where the company's actual earnings are lower than the estimated one, it may an indication of poor performance for the company. On the other hand, the fact that a company earns more than its earnings estimates is an indicator of its good performance.

. Operating income also refers to as operating profit or Earnings Before Interest & Taxes (EBIT), it is the amount of revenue left after deducting the operational direct and indirect costs from sales revenue. Interest expense, interest income, and other non-operational revenue sources are not considered in computing operating income.

Sales revenue or net sales is the monetary amount obtained from selling goods and services to business customers, excluding merchandise returned and any allowances/discounts offered to customers. Whether income, revenue, or earnings, everything is summed up in the statement of accounting policy adopted in the preparation and presentation of financial statements as turnover. It is usually stated as goods or services issued to third parties net of returns. Liquidity is the ability of an organization to satisfy its short-term obligations as they fall due. It refers to the solvency of the organization's overall financial position – the ease with which it can pay its bill (Lawrence and Chad, 2013). Liquidity risk is the risk that the entity will not have access to sufficient cash to meet its payment obligations when they are due. According to IFRS 7, an entity should disclose: (a) a maturity analysis for financial liability, showing when the contractual liabilities fall due for payment, and (b) a description of how the entity manages the liquidity risk that arises from this maturity profile of payment.

Empirical Framework

A lot of research had been carried out on the relationship between liquidity and profitability ((Ben-Caleb Olubukola and Uwuigbe, 2013; Sur, 2000; Owolabi and Obida,2012; Bhunia, 2010; Bhunia, Khan and Mukhuti,2011; Dash and Hanuman,2008; Eljelly, 2004; Owolabi, Obiakor and Okwu, 2011, Saleem and Rehman,2011; Smith,1980; Wang,2002; Nworji and Alayemi,2014; Amalendu, Islamuddin and Somnath,2011)

Furthermore, research was carried out on how cash flow can predict financial distress (Alayemi, Owolabi, and Sokefun, 2015, Giacomino and Mielke, 1993; Cacey and Bartczak,1985; Mills and Yamamura, 1988; Zeller and Stanko,1994; Kisangand Shawn, 2004).

From the careful review of available empirical studies, there are many studies on the relationship between profitability and liquidity employing traditional accounting ratios in the course of their studies. The researchers were able to find out that research on the impact of earnings quality on liquidity risk has not been carried out. This study, therefore, explored

quite different accounting ratios as a departure from the traditional accounting ratios employed by other older researchers.

From the foregoing, the study is to examine the impact of earnings quality on liquidity risk of   the manufacturing sector of the Nigeria economy. On the other hand, the study is to   achieve the following specific objectives:

a.   To examine how earnings quality impacts the operating cash flow of the manufacturing sector in Nigeria.

b.   To determine the impact of earnings quality on the cash ratio of the manufacturing sector in   Nigeria.

c.   To investigate the way earnings quality impacts cash debt coverage of the manufacturing sector in Nigeria.

The objectives above were achieved by providing answers to the following questions:

a.   To what extent does earnings quality impact the operating cash flow of the manufacturing sector in Nigeria?

b.   What impact does earnings quality have on cash in the manufacturing sector in Nigeria?

c.   To what extent does earnings quality impact cash debt coverage of the manufacturing sector in   Nigeria?

The following hypotheses stated in the null form are to answer the research questions and achieve the research objectives:

The main hypothesis is that earning quality does not significantly affect the liquidity risk of the manufacturing sector in Nigeria . Specific hypotheses are as follows:

H01: Earnings quality does not significantly impact the operating cash flow of the manufacturing sector in Nigeria.

H02: There is no significant effect of earnings quality on the cash ratio of the manufacturing   sector in Nigeria.

H03: There is no significant effect of earnings quality on cash debt coverage in the manufacturing sector in Nigeria.

Material and Method

The study examined the impact of earnings quality on liquidity risk with an emphasis on the manufacturing sector of the economy in Nigeria. Therefore, for the purpose of this study, all listed manufacturing companies listed on the Nigerian Stock Exchange constituted the population. A purposive sampling procedure was employed to select ten listed companies based on their annual turnover using 2011 as the base year to cover a period of ten years (2011- 2020). The study employed a secondary method of data collection because the data contained from the financial statements of the sampled companies had been validated which made the data from the financial statements reliable (Tharshiga, 2013; Velnampy, 2005, 2006 and 2012; Kisang and Shawn, 2004).

A quantitative approach was adopted thereby making the work a scientific study. This is to provide a solution to practical problems and knowledge in examining the earnings quality of the manufacturing sector of the economy in Nigeria. Hence, as applied research to solve the problem that exists on how to manage earnings quality to maintain the long-run solvency of the entity.

Model specification
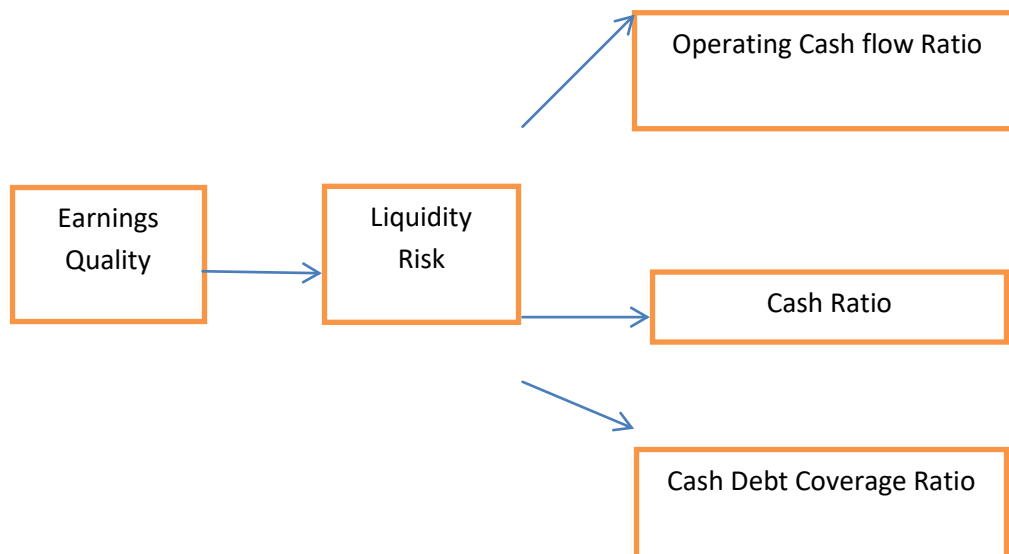
Model developed by researchers 2022

TABLE 1: Measurement of variables

Variables	Measurement	Sources
Earnings Quality (EARQ) Y	Cash flow from operation/ Net Income	Figelwicz and Zella,1991; Schmidgall et al., 1993
Operating cash flow ratio (OCFR) x_1	Cash flow from operation/current liabilities	Mills et al., 1998; Figelwicz and Zella, 1991
Cash ratio (CASR) x_2	Cash/ Current Liabilities	Mills et al. ;1998
Cash debt coverage ratio (CDCR) x_3	Cash flow from operation/Total Debts	Carslaw and Mills, 1991

Operationalisation of Variables

$y = f(X)$

where:

y = EARQ

$X = x_1, x_2, x_3$

x_1 = OCFR

x_2 = CASR

x_3 = CDCR

EARQ = f(OCFR, CASR, CDCR)

EARQ = $\beta_0 + \beta_1(OCFR) + \beta_2 (CASR) + \beta_3 (CDCR) + \mu$

Result

Descriptive statistics was employed to test the distribution pattern of the data collected as well as asymmetry using skewness and kurtosis. The values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2010). Hair et al. (2010) and Bryne (2010) argued that data is considered to be normal if skewness is between -2 to +2 and kurtosis is between -7 to +7. As demonstrated from the data in Table 2 above, the data is evenly distributed and asymmetrical.

Table 2: Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Dev.	Skewness	Kurtosis
EARQ	-0.13	1.76	0.28	0.32	2.48	6.99
OCFC	-0.48	3.15	0.57	0.59	2.08	6.07
CASR	0.03	1.43	0.35	0.36	1.69	1.96
CADC	-0.33	2.46	0.40	0.42	2.06	6.72

Researchers Computation Using SPSS

Multicollinearity was carried out through examination of tolerance and VIF using regression result provided by SPSS collinearity diagnosis result. Hair et al.., 2010 recommended that this is the most important and reliable test of multicollinearity. From Table---, it was revealed that tolerance ranges between 0.19 and 0.20 which is greater than 0.10 substantially, and VIF ranges from 1.03 to 5.19. this is acceptable because it is less than 10. Hence, in line with Hiar et al, 2010 and Pallant , 2010, the result showed that multicollinearity does not exist in this study; since tolerance is avove 0.10 and VIF value is below 10.

Table 3: Multicollinearity test based on Tolerance and VIF values

	Tolerance	VIF
OCFC	0.19	5.19
CASR	0.97	1.03
CADC	0.20	5.14

Researchers Computation Using SPSS, 2022

Table 4: ANOVA[a]

Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	7.05	3	2.35	80.86	0.00[b]
	Residual	2.79	96	0.03		
	Total	9.84	99			

a. Dependent Variable: EARQ

b. Predictors: (Constant), CADC, CASR, OCFC

Researchers Computation Using SPSS, 2022

The position of the lack of multicollinearity is supported by the ANOVA

The purpose of ANOVA is to test whether or not the data fits the model. Since Sig. is 0.00 which is less than 0.05, it showed that the data fits the model.

Table 5: Model Summary[b]

$R = 0.85$[a]

$R^2 = 0.72$

Adjusted $R^2 = 0.71$

a. Predictors: (Constant), CADC, CASR, OCFC

b. Dependent Variable: EARQ

Researchers Computation Using SPSS, 2022

Regression Analysis

The R^2 measured the proportion of the variation in the dependent variable (EARQ) accounted for by the independent variables (OCFC, CASR and CADC) included in the model. As shown above, R^2 is 0.72; meaning that 72 % of the variation was explained while 28% was not explained. The model as shown by F-value of 80.86 and Prob(F-Statistic) of 0.0000 was an indication that the model is significant; there is no autocorrelation (Table 4 above).

$$EARQ = 0.035 + 0.513(OCFC) - 0.055(CASR) + 0.344(CADC)$$

$$1.132 \qquad 4.141 \qquad -0.997 \qquad 2.795$$

p -value

		p -value
Intercept	0.035	
	1.132	
OCFC	0.513	0.00
	4.141	
CASR	-0.055	0.32
CADC	0.344	
	2.795	0.01

The effect of OCFC and CADC on EARQ is statistically significant because the p-value is less than 0.05 while the effect of CASR on EARQ is not statistically significant because the p-value is greater than 0.05. The null hypotheses are that all the coefficients are equal to zero. That is, $H_0: \beta_1 = \beta_2 = \beta_3.$ Therefore, hypotheses 1 and 3 were rejected while hypothesis 2 was accepted.

Conclusion

Manufacturing sector of the economy derives her income/revenue from sales of goods/services invoiced to third party net of return. This is usually stated under the statement of accounting policies adopted in the preparation and presentation of financial statements as stipulated by 'Disclosure of accounting information under statement of accounting standards'. It should be noted that there are two types of sales, namely cash sales and credit sales. Under the cash sales payment is made to the seller by the buyer immediately goods are sold. However, under the credit sales, payment of cash is delayed for a period of time, leading to issues of receivables. Because an entity cannot do without cash as a result of day-to-day running of the entity and other financial obligations both in the short run and long run, the issue of earnings quality is of great importance so as to address the issue of liquidity risk. Therefore, it is very important for an entity to consider the rate and degree at which its sales are being converted to cash and the rate and degree at which creditors are paid.

Implications

a. The credit policies of the entity must be sound and strong to avert a situation where some receivables become bad.

b. Management should pay attention to cash inflow and cash outflow to strike balance between the two. This is to avoid a situation where the company will be in a difficult situation when it comes to the issue of cash flow.

c. The period of credit facilities enjoyed from suppliers should be considered. The entity must synchronize the number of days sales are outstanding and the average payment period.

Limitation

The study examined only the impact of earnings on the liquidity risk in manufacturing sector of Nigeria economy on short-term. The research did not consider long-term sustainability as it affects manufacturing sector of Nigeria economy.

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