IAA Journal of Applied Sciences 4(1):73-104, 2018. IAAJOURNALS ISSN: 2636-7246

Gearing and Financial Performance of Brewery Industry in Nigeria

Innocent Ikechukwu Okpe, Anastesia Nwakaego Duru and Okwueri Joy Oluchi

Department of Accountancy Enugu State University of Science and Technology, Enugu State, Nigeria.

ABSTRACT

This research work examined the effect of gearing on the financial performance of brewery industry in Nigeria. The following are the specific objectives: to examine the effect of short term debt on the profit after tax of the selected brewery industries in Nigeria, to ascertain the effect of long term debt on profit after tax of the selected Brewery industries in Nigeria, to examine the effect of total debt on the profit after tax of the selected Brewery industries in Nigeria and to determine the effect of equity on the profit after tax of the selected Brewery industries in Nigeria. The researcher used secondary sources of data; relevant data were collected from annual financial reports of the selected 5 Breweries Industries in Nigeria. The researchers adopted ex-post factor research design. Ordinary least square regression techniques were used to ascertain the causal effect among variables. Upon the analysis of data, the following findings were drawn; Short term debt has a positive and significant effect on the profitability of the selected firms. Long term debt has a positive and significant effect on the profitability of the selected firms. Total debt has a positive and significant effect on the profitability of the selected firms. Equity has a positive and significant effect on the profitability of the selected firms. Finally the researcher therefore recommends that Companies should employ competent professionals to manage their debt capital portfolio. The management should always review and evaluate, on timely basis, the financial statement with a view to arresting mismatch of its debt-equity ratio to avoid financial burden that could emanate from such occurrence. Excessive debt capital should be immediately repaid or deployed to earning assets.

Keywords: Gearing, Financial performance and Ordinary least square regression

INTRODUCTION

Gearing has been variously measured by different authors through their different definitions, virtually all of them view gearing as the relationship between fixed interest capital and ordinary share capital but in different ways. Some describe the fixed interest capital as aggregate fixed return capital which includes preference shares and long term loans, some authors argued that hank loans and overdraft which normally command fixed interest rate of return should be included in the computation. [1] agreed that gearing should be the relationship between ordinary share capital and securities

creating fixed interest or dividend charges on income which has an effect on the attitude of prospective ordinary shareholders.

Every business set up, whether sole trading, partnership or even limited liability companies have a way by which it is financed by the owners [2]. The various sources of financing an organization are described as its capital structure [3]. This structure can be in form of share capital and reserve, regarded as shareholders' funds and the long term debts, which we regard as gearing or leverage. The latter source, gearing, is the focus of this study and is

considered as a measure of financial leverage that demonstrates the degree to which a firm's activities are funded by owners' funding against external funding. This demonstration is regarded as gearing ratio which indicates the extent of financial risk borne by long term debt holders and equity holders and expressed as the relationship between fixed interest capital and ordinary share capital [4].

The fixed interest capital comprises of all capital with fixed coupon rate, such as, preference shares (all form except participatory preference share excluding the extent by which the holders partake in the share of ordinary dividend) and all creditors falling due after more than one vear as loans. debentures. mortgage, bonds etc. If the relationship is high, this means that the company is highly geared and results in the company being controlled by external owners, if on the other hand, it is low, it means that the company has the greater control by the insider, which is better for the company. Nonetheless, because of the advantages accruing to company using debt financing, it is advocated that companies should endeavour to mix their structures by using both debts and equity in their project financing, whichever of the funding that is used in greater proportion will determine who has the higher claim in the business.

As posited by [5], investment projects of a firm can be financed either by increasing the owners' claims or the creditors' claims or both. The owners' claims increase when the firm raised funds by issuing common stocks or by retaining the earnings and the creditors' claims increase by borrowings.

[6] is also in agreement with the fact that gearing measures the relationship between long term debt and equity in a company's total capital financing. [7] in his own contribution viewed leverage from its advantageous perspective when he described leverage as an increased means of achieving profits in a business. The best known examples of gearing ratios include the debt-to-equity ratio (total debt/total equity), times interest earned (EBIT/total interest), equity ratio (equity/assets), and debt ratio (total debt / total assets).

A company with high gearing (high is more vulnerable leverage) to downturns in the business cycle because the company must continue to service its debt regardless of how bad sales are [8]. A greater proportion of equity provides a cushion and is seen as a measure of financial strength. The gearing ratio measures the proportion of a company's borrowed funds to its equity. The ratio indicates the financial risk to which a business is subjected, since excessive debt can lead to financial difficulties. A high gearing ratio represents a high proportion of debt to equity, and a low gearing ratio represents a low proportion of debt to equity. This ratio is similar to the debt to equity ratio, except that there are a number of variations on the gearing ratio formula that can yield slightly different results.

A high gearing ratio is indicative of a great deal of leverage, where a company is using debt to pay for its continuing operations. In a business downturn, such companies may have trouble meeting their debt repayment

schedules, and could risk bankruptcy. The situation is especially dangerous when a company has engaged in debt arrangements with variable interest rates, where a sudden increase in rates could cause serious interest payment problems [9].

STATEMENT OF THE PROBLEM

Gearing is a general term describing a financial ratio that compares some form of owner's equity (or capital) to borrowed funds. Gearing is a measure of financial leverage, demonstrating the degree to which a firm's activities are funded by owner's funds versus creditor's funds.

The problem is that most Nigeria firms have high degree of leverage which have set them on high risky side because the higher a company's degree of leverage, the more the company is considered risky.

Positive gearing occurs when the taxable income received from investing (eg. managed fund, rental property income, or share dividends) is greater than the tax-deductible borrowing and investment costs (eg. loan interest, property maintenance costs, or ongoing portfolio costs) within a financial year but in Nigeria many companies' tax deductible borrowing and investment cost exceed their taxable income.

Bankruptcy costs are another problem that has led to fall in value of firm's securities in Nigeria. Because of debt increases, default of repayment of principal and interest increases and this has made many of their investors dislike this and has result in fall in value of firm's securities.

in Nigeria have gone into Firms liquidation or approaches near bankruptcy because of severe financial distress. This has led to loss of employees, suppliers refusing to provide goods on credit and customers even leaving with the fear that those firms will not be able to honor its warranty and after sales services commitments and this has reduced most companies future cash flow and therefore, value of the firm. However another concern of the researcher is that most Nigeria companies use debt to pay for its continuing operations which has led to inability of the companies to meet up with their debt repayment schedules and have faced the risk of bankruptcy. It is on the ground of the above problems faced my companies in Nigeria especially Breweries industries that this study wants to examine the effect of Gearing on the Performance of firms in

Nigeria.

OBJECTIVES OF THE STUDY

The main objective of the study is to examine the effect of gearing on the financial performance of Brewerv industry in Nigeria. The specific objectives of the study;

- 1. To examine the effect of short term debt on the profit after tax of selected the Brewerv industries in Nigeria.
- 2. To ascertain the effect of long term debt on profit after tax of

the selected Brewery industries in Nigeria.

- 3. To examine the effect of Total debt on the profit after tax of the selected Brewery industries in Nigeria.
- To determine the effect of Equity 4. on the profit after tax of the selected Brewery industries in Nigeria.

RESEARCH QUESTIONS

- 1. What is the effect of short term debt on the profit after tax of the selected Brewery industries in Nigeria?
- 2. To what extent has long term debt affect profit after tax of the selected Brewery industries in Nigeria?
- 3. What is the effect of Total debt on profit after tax of the selected Brewery industries in Nigeria?
- 4. To what extent has Equity affect profit after tax of the selected Brewery industries in Nigeria?

STATEMENT OF RESEARCH HYPOTHESES

- 1. Short term debt has positive and significant effect on the profit after tax of the selected Brewery industries in Nigeria.
- 2. Long term debt has positive effect on the profit after tax of the selected Brewery industries in Nigeria.
- 3. Total debt has positive and significant effect on the profit after tax of the selected Brewery industries in Nigeria.
- 4. Equity has positive effect on the profit after tax of the selected Brewery industries in Nigeria.

SIGNIFICANCE OF THE STUDY

This study will be of great importance to the following interest group.

Manufacturing Industries: The 1. selected companies in Nigeria will use the findings to assess the state of their capital structure as well as their financial leverage and its impact on firm's financial performance and draw up some policies that will better their debt structure.

2. Academia: In the academic world, the study will shed some lights on the significant effect of Gearing on firm value in Nigeria. Future researchers no doubt would find outcome of the study useful in that it will serve as a

useful references materials for future research.

3. **The Researchers:** This study will help the researchers have more insight on debt structure specifically gearing ratio and its influence on firm performance. This study is also in fulfillment of the requirement for the award of Bachelor of Science (B.Sc.) in Accountancy.

SCOPE OF THE STUDY

This study is on the effect of gearing on firm performance. The study covered 5 selected Brewery Industry in Nigeria and they include Guinness Nigeria Plc., Premier Breweries Plc, International Breweries Plc, Nigerian Breweries Plc and Champion Breweries Plc. The researchers collated the variables from the company's annual report/statement of account. The study also covered a period of 10 years; from 2007 to 2017.

LIMITATION OF THE STUDY

Unavailability of data for the current year 2018 is a major limitation in this study. In order words, the data from the annual financial statement of the selected Breweries industries used in this study were not readily available for the period, 2018, hence the choice of the period were 2017 as the most recent year for the study.

RESEARCH METHODOLOGY AND DESIGN

The research was adopted to examine the effect of Gearing on the financial performance of Nigerian quoted Brewery of firms in Nigeria. The study made use of *ex-post facto* research design. According to [10] in the context of social science research an *ex-post facto* investigation seeks to reveal possible relationships by observing an existing condition or state of affairs and searching back in time for plausible contributing factors.

SOURCES OF DATA

This study made use of mainly data collected from secondary sources. The study utilizes data which were obtained from the annual financial statements of the selected Brewery firms in Nigeria.

POPULATION OF THE STUDY

The population for the study is 22 which consist of consumer goods sub-sector currently.

DETERMINATION OF SAMPLE SIZE

Out of the twenty two (22) consumer Nigeria, the goods in researcher randomly selected five **Breweries** companies and they include, Guinness Nigeria Plc., Nigerian Breweries Plc., International Breweries Plc., Champion Breweries Plc. and Premier Breweries Plc. The researcher chose these 5 Brewery companies because of unavailability of Data. Only 5 brewery companies were studied because of incomplete and unavailability of data.

TECHNIQUES FOR DATA ANALYSIS

The method to be used for this work is the ordinary least square (OLS). This is because it has the best, linear, unbiased Estimator (BLUE). Another reason being that its computational procedure is fairly simple compared to other econometric techniques. Preliminary texts such as Graphical representation, normality and co-integration would be conducted to ensure that data has a normal distribution. Decision would be based on 5 percent level of significance.

MODEL SPECIFICATIONS

The model for this study is multiple linear regression method. Specifically, an ordinary least square (OLS) regression model will was adopted. The reason why the researcher chose to use ordinary least square rests on the fact that it poses a blue property which is best linear unbiased estimator. The OLS procedure of estimate is chosen for this PAT f(STD, LTD, TD, EQTY)(3.0) = Equation 3.0 reads profit after tax as a function of short term debt, long term debt, total debt and total equity. In PAT $= \beta_0 + \beta_1 STD_1 + \beta_2 LTD_1 + \beta_3 TD_1 + \beta_4 EQTY_1 + \mu t....(3.1)$ Where

PAT Profit after Tax =

study because its computational procedures are simple and the estimates obtained from the procedures have optimal properties which include linearity and unbaisedness.

The following model is specific in an attempt to determine the effect of gearing on firm value.

order to capture the influence of the stochastic or random variable, the equation is explicitly transformed as:

Okpe et al

www.iaajournals.org

TD	=	Total Debt
ST	=	Short Term Debt
LT	=	Long Term Debt
EQTY	=	Total Equity
β0		= Constant
β1, β2, β3,	β4 =	Regression Coefficients
= 3	Error	Term
t =	Time	Series/ Number of Years.
The mode	el specifie	d above were used to
construct	model	for hypothesis 1-4,
state mat	hematicall	y as shown below.
Hypothes	es One:	
НО. То	tal debt h	as no effect on Profit
aft	er tax of	the selected Brewery
ind	dustries in	n Nigeria.
$PAT_t = f$	$\beta_0 + \beta_1 TD_t +$	μt(3.3)
Urmothod		
Short tor	es Iwo:	to accet has no a
Short ter	mnaat on	to asset has no a
positive I		ductures in Ninerric
	srewery in	austries in Nigeria.
$PAI_t = p$	$b_0 + b_1 S I D_t$	+ μι(3.4)
Hypothes	is Three	
Long tern	n debt to	asset does not have
effect on	Profit aft	er tax of the selected
Breweries	industrie	s in Nigeria.
$PAT_t = f$	$\beta_0 + \beta_1 LTD_t$	+ μt(3.5)
Hypothes	is Four	

Equity does not have effect on Profit after tax of the selected Breweries industries in Nigeria. PAT_t = $\beta_0 + \beta_1 EQTY_t + \mu t$(3.4)

DESCRIPTION OF VARIABLES IN THE MODEL

1. **Profit after Tax:** This reflects the overall performance of the firm and the total profits gained by a firm.

2. Total Debt Ratio:

Total debt ratio measures the amount of a firm's total assets that is financed with external debt. The total debt to total assets is a broad ratio that includes long-term and short-term debt (borrowings maturing within one year), as well as all assets – tangible and intangible.

Total Dobt To Total Assots -	Short TermDebt + Long TermDebt
Total Debt To Total Assets -	Total Assets

3. **Short Term Debt Ratio:** Short term debts are debt obligation that matured within one accounting year. This is measured thus; Short term debt = *Total Assets/ShortTerm Debt*

4. **Long Term Debt Ratio**: This is interest costs incurred on long-term borrowed funds, and because long-term borrowing places multi-year, fixed financial obligations on a firm. Long term debt ratio is measured by dividing long term debt with the total assets of the firm, and has been adopted in several empirical studies. Long term debt ratio = *Total Assets/Long TermDebt*

5. Equity: This relates the amount of a firm's debt financing to the amount of equity financing. Debt equity ratio is the quantitative measures of the proportion of the total debt to residual owners' equity. It is an indicator of company's financial structure and whether the company is more reliant on borrowing (debt) or shareholders capital (equity) to fund assets and activities. Debt equity ratio = Shareholders Funds/Total Debt.

ESTIMATION PROCEDURE

a. Coefficient of multiple determinations (R²).

It is used to test for the goodness of fit and show the percentage of the total variables that is change in β 0, β 1, β 2, β 3, β 4. It is given by the formula below: $R^2 = 1-(1-R^2)/N-k-1$. Where the variables are expressed in deviation from there mean. The value of R^2 lies between 0 and the higher the R^2 the greater the goodness of fit and the closer the R^2 to zero, the worse the goodness of fit

b. T-Test:

This is used to test for the statistical significance of the individual regression co-efficient. A two-tailed test is conducted at 5 percent level of

c. F-Test

This measures the overall significance of the entire regression plane. The impact of the explanatory variables actually have a significant influence on Where $F^* = R2/K-1$

(1-R2)/N-K

Where

V1 = Degree of freedom of numerator

V2 = Degree of freedom of denominator

K = Number of Parameter estimates

N = Sample Size

Decision Rule:

If computed F is higher than the critical value F i.e if F > 0.025, reject the null hypothesis if otherwise accept it.

significance. When this is done the computed r ratio (tcal) is compared with the theoretical t (ttab).

Where n = number of sample size

K = total number of parameter estimates

the dependent variable. The computed F with ratio F* is compared with the theoretical F with V1 and V2, N-K degree of freedom

Table 1	Raw Data	for Guinness N	igeria Plc		
YEAR	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
2007	10,691,060	26,568,316	13,602,269	40,170,585	31,638,842
2008	11,860,880	25,640,278	12,152,832	37,783,110	36,862,557
2009	13,541,189	31,141,958	11,202,078	42,344,034	31,524,701
2010	13,736,359	30,648,377	13,549,380	44,197,757	34,199,119
2011	17,927,934	36,535,848	15,355,692	51,891,540	40,283,492
2012	14,671,195	38,996,801	23,184,867	62,181,668	40,352,504
2013	11,863,726	51,275,095	23,746,413	75,021,510	46,039,111
2014	9,573,480	44,248,832	43,018,912	87,266,556	45,061,717
2015	7,794,899	12,588,832	27,804,912	40,393,744	48,341,376
2016	2,015,880	19,239,788	28,222,217	47,462,005	41,660,605
2017	1,223,372	26,198,977	6,716,442	32,915,419	13,826,561

DATA PRESENTATION AND ANALYS	IS
------------------------------	----

Source: Guinness annual and financial statement, 2007 - 2017

From Table 1, shows annual data for profit after taxation, short term debt, long term debt, total debt and equity of Guinness Nigeria Plc. Profit after tax increased in 2011 with a value of ₦17,927,934and decreased in 2015 with a value of \$1,223,372. This shows that the company made more profit in 2015 than the other years under review. It also indicates that in 2013 the company financed its business with more of short term debt of ₩51,275,095 while 2015 recorded the lowest value of

₦12,588,832. In 2014 the company financed its business with more of Long term debt with a value of N43,018,912and was low in 2017 with a value of Total debt recorded ₩6,716,442. ₦87,266,556 in 2014 and recorded low value of ₩32,915,419in 2017. Equity recorded the highest value of N48,341,376 in 2015 and was low in 2017 with a value of N13,826,561, this implies that the companies financed its business in 2015 with more of equity.

YEAR	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
2007	18,942,856	29,413,531	17,951,709	47,365,240	43,183,042
2008	25,700,393	28,912,490	17,408,008	46,320,498	32,229,181
2009	27,910,091	42,318,498	18,099,291	60,417,789	46,570,094
2010	30,332,118	44,879,962	19,337,308	64,217,270	50,172,162
2011	38,434,033	60,796,538	20,806,392	81,602,930	49,279,276
2012	38,042,714	86,834,468	73,351,269	160,185,737	93,447,892
2013	43,080,349	100,295,715	40,104,733	140,400,448	112,359,185
2014	42,520,253	114,025,572	63,239,328	177,264,900	171,964,263
2015	38,049,518	140,655,590	43,818,068	184,473,658	172,233,465
2016	28,396,777	144,856,800	56,977,573	201,834,373	165,805,542
2017	33,009,292	156,698,905	47,876,701	204,575,606	178,150,934

 Table 2: Raw Data for Nigeria Breweries Plc

Source: Nigeria Breweries annual and financial statement, 2007 - 2017.

From Table 2, shows annual data for profit after taxation, short term debt, long term debt, total debt and equity of Nigeria Breweries Plc. Profit after tax showed a high increase in 2013 with a value of $\mathbb{N}43,080,349$ and decreased in with more of short term debt of $\mathbb{N}156,698,90$, 2007 with a value of \aleph 18,942,856. This shows that the company made more profit in 2015 than the other years under review. It also indicates that in 2017 the company financed its business

YEAR	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
2007	118,214,516	1,635,499,075	0	1,635,499,075	1,308,061,900
2008	5,597,612	22,480,451	3,973,648	10,043,523	7,702,178
2009	4,806,907	28,158,890	5,955,528	9,639,695	9,757,563
2010	2,412,343	31,370,833	6,886,614	7,478,808	38,257,447
2011	1,685,342	2,342,470	7,656,883	9,999,353	2,516,680
2012	1,685,342	10,153,591	2,551,398	12,704,989	1,583,323
2013	2,506,490	7,854,517	5,802,072	13,656,589	9,380,173
2014	2,105,500	6,604,447	6,496,170	13,100,617	0
2015	1,946,490	9,975,208	8,028,123	18,003,331	12,168,259
2016	2,652,748	15,940,734	3,543,981	19,484,715	13,997,391
2017	1,223,372	26,198,442	6,716,442	32,915,419	13,826,561

 Table 3: Raw Data for International Breweries Plc

Source: International Breweries annual and financial statement, 2007 - 2017

From Table 3, shows annual data for profit after taxation, short term debt, long term debt, total debt and equity of International Breweries Plc. Profit after tax showed a high increase in 2007 with a value of \mathbb{N} 118,214,516and decreased in 2017 with a value of \mathbb{N} 1,223,372. This shows that the company made more profit in 2007 than the other years under review. It also indicates that in 2007 the company financed its business with more of short term debt of 1,635,499,075 while 2011 recorded the lowest value of \mathbb{N} 2,342,470. In 2015 the company financed its business with

more of Long term debt with a value of ₦8,028,123and in 2007the company did not record any value showing that they did not finance their business with long term debt in 2007. Total debt recorded N1,635,499,075 in 2010 and recorded low value of N7,478,808in 2010. Equity recorded the highest value of N1,308,061,900 in 2007 and in 2014 the company did not record any value showing that they did not finance the company with shareholders fund that year. It also implies that international breweries finance their business with more of equity in 2014.

Table 4: Raw Data for (Champion	Breweries	Plc
-------------------------	----------	-----------	-----

YEAR	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
2007	4,136	22,480,031	10,924	12,819	24,483
2008	5,285	28,158,890	11,970	10,372	25,770
2009	3,659	31,370,833	12,881	12,536	24,480
2010	4,598	34,697,653	12,483	15,078	26,089
2011	4,623	20,556,000	14,662	14,921	32,591
2012	1,336,690	10,166,205	62,995	10,229	3,430
2013	1,178,025	13,683,275	62,827	13,746,102	3,430
2014	754,523	3,578,929	143,021	3,721,950	5,870,431
2015	77,140	3,073,998	133,525	3,207,523	7,121,637
2016	530,389	2,208,173	82,207	2,290,380	7,670,860
2017	517,562	1,627,573	325,828	1,953,401	8,135,460

Source: Champion Breweries annual and financial statement, 2007 - 2017

From Table 4, shows annual data for profit after taxation, short term debt, long term debt, total debt and equity of Champion Breweries Plc. Profit after tax showed a high increase in 2012 with a value of \aleph 1,336,690 and decreased in 2009 with a value of \aleph 3,659. This shows that the company made more

profit in 2012 than the other years under review. It also indicates that in 2010 the company financed its business with more of short term debt of N34,697,653 while 2017 recorded the lowest value of N1,627,573. In 2017 the company financed its business with more of Long term debt with a value of N325,828 and was low in 2007 with a value of N10,924. Total debt recorded N13,746,102 in 2013 and recorded low value of N10,229in 2012. Equity recorded the highest value of

N8,135,460 in 2017 and was low in 2012 and 2013 with a value of N3,430, this implies that the companies financed its business in 2017 with more of equity.

Table	e 5:	Raw	Data	for	Premi	er Brewe	eries	Plc
-------	------	-----	------	-----	-------	----------	-------	-----

YEAR	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
2007	19,051	43,326	17,259	60,585	54,776
2008	11,382	33,223	18,076	51,299	54,916
2009	12,602,109	22,012,398	14,695,469	36,707,867	10,543,935
2010	9,783,578	19,455,299	26,026,410	45,481,709	14,865,353
2011	9,904	35,232	20,585	55,817	58,274
2012	11,060	38,753	24,872	63,625	62,604
2013	10,445	32,917	23,386	56,303	64,139
2014	14,904	32,895	28,671	61,566	71,884
2015	23,736,771	59,731,857	21,476,122	81,297,979	38,007,074
2016	7,924,968	121,033,434	17,674,423	138,707,857	30,878,075
2017	33,723,730	79,680,495	22,245,456	101,925,951	44,878,177

Source: Premier Breweries annual and financial statement, 2007 - 2017

From Table 5, shows annual data for profit after taxation, short term debt, long term debt, total debt and equity of Premier Breweries Plc. Profit after tax showed a high increase in 2017 with a value of \aleph 33,723,730 and decreased in 2011 with a value of \aleph 9,904. This shows that the company made more profit in 2011 than the other years under review. It also indicates that in 2016 the company financed its business with more of short term debt of \aleph 121,033,434 while 2014 recorded the

lowest value of N32.895. In 2010 the company financed its business with more of Long term debt with a value of N26,026,410 and was low in 2007 with a value of №17,259. Total debt recorded №138,707,857 in 2016 and recorded low value of N51,299in 2008. Equity recorded the highest value of N44,878,177 in 2017 and was low in 2007 with a value of \$54,776, this implies that the companies financed its business in 2017 with more of equity.



DATA ANALYSIS

Figure 1:Line Graph - Industry group data (Guinness Nigeria Plc)

Source: Eview Output, 2018

Figure 1 shows a line graph that is used to display data that changes continuously over time. It shows the changes of independent variables which include short term debt, long term debt, total debt and equity of Guinness Nigeria Plc on the dependent variable "Profit after Tax".

From the above graph, we can see that Profit after tax increased in 2011 and was low in 2017. Short term debt was high in 2013 and declined in 2015. Long term debt was high in 2014 and declined

www.iaajournals.org

in 2017. Total debt was increased in increased in 2015 and decreased in 2014 and reduced in 2017. Equity 2017

Table 6: Descriptive Statistics – Industries Data Series (Guinness Nigeria Plc)

	PAT	STD	LTD	TDT	EQTY
Mean	10445452	31189373	19868729	51057084	37253690
Median	11860880	30648377	15355692	44197757	40283492
Maximum	17927934	51275095	43018912	87266556	48341376
Minimum	1223372.	12588832	6716442.	32915419	13826561
Std. Dev.	5120777.	11088935	10497270	16980299	9601826.
Skewness	-0.653896	0.186419	0.871222	1.087640	-1.254766
Kurtosis	2.560024	2.462568	3.071648	2.962106	4.253984
Jarque-Bera	0.872619	0.196094	1.393905	2.169421	3.607189
Probability	0.646418	0.906606	0.498101	0.338000	0.164706
Sum	1.15E+08	3.43E+08	2.19E+08	5.62E+08	4.10E+08
Sum Sq. Dev.	2.62E+14	1.23E+15	1.10E+15	2.88E+15	9.22E+14
Observations	11	11	11	11	11

Source: Eview Output, 2018

The normality test in table 4.8 above adopted is the Jargue-Bera(JB) test of normality. The JB test of normality is a large sample test and is based on the OLs residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis all the probability of Jarque-Bera

statistic is greater than 5% i.e 0.646418(PAT), 0.906606(STD), 0.498101(LTD), 0.338000(TDT) and 0.164706(EQTY) are greater than 0.05, therefore we conclude that the entire variable are normally distributed.



Figure 2: Line Graph - Industry group data (Nigeria Breweries Plc)

Source: Eview Output, 2018

Figure 2 shows a line graph that is used to display data that changes continuously over time. It shows the changes of independent variables which include short term debt, long term debt, total debt and equity of Nigeria Breweries Plc on the dependent variable "Profit after Tax".

From the above graph, we can see that Profit after tax increased in 2016 and was low in 2007. Short term debt was high in 2017 and declined in 2008. Long term debt was high in 2012 and declined in 2008. Total debt was increased in 2017 and reduced in 2008. Equity increased in 2017 and decreased in 2008.

Table 7: Descriptive Statistics - Industries Data Series (Nigeria Breweries PIC)						
	PAT	STD	LTD	TDT	EQTY	
Mean	33128945	86335279	38088216	1.24E+08	1.01E+08	
Median	33009292	86834468	40104733	1.40E+08	93447892	
Maximum	43080349	1.57E+08	73351269	2.05E+08	1.78E+08	
Minimum	18942856	28912490	17408008	46320498	32229181	
Std. Dev.	7600152.	48097931	20612002	64762964	60613374	
Skewness	-0.318689	0.175389	0.369875	-0.038712	0.215596	
Kurtosis	2.123069	1.522563	1.708656	1.284592	1.300442	
Jarque-Bera	0.538660	1.056856	1.015116	1.351450	1.409111	
Probability	0.763891	0.589531	0.601964	0.508787	0.494328	
Sum	3.64E+08	9.50E+08	4.19E+08	1.37E+09	1.12E+09	
Sum Sq. Dev.	5.78E+14	2.31E+16	4.25E+15	4.19E+16	3.67E+16	
Observations	11	11	11	11	11	

-

Source: Eview Output, 2018

The normality test in table 8 above adopted is the Jargue-Bera (JB) test of normality. The JB test of normality is a large sample test and is based on the OLs residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis all the probability of Jarque-Bera statistic is greater than 5% i.e

0.763891(PAT), 0.589531(STD), 0.508787(TDT) 0.601964(LTD), and 0.474328(EQTY) are greater than 0.05, therefore we conclude that the entire variable are normally distributed.



Figure 3: Line Graph - Industry group data (International Breweries Plc)

Source: Eview Output, 2018

Figure 3 shows a line graph that is used to display data that changes continuously over time. It shows the changes of independent variables which include short term debt, long term debt, total debt and equity of International Breweries Plc on the dependent variable "Profit after Tax".

From the above graph, we can see that Profit after tax increased in 2007 and was low in 2017. Short term debt was high in 2007 and declined in 2011. Long term debt was high in 2015 and declined in 2007. Total debt was increased in 2007 and reduced in 2010. Equity increased in 2007 and decreased in 2012.

Table 8: Descriptive Statistics - Industries Data Series (International Breweries Plc)							
	LEQTY	LLTD	LPAT	LSTD	LTD	LTDT	
Mean	15.96543	15.49071	14.70207	16.42231	5679410.	16.41526	
Median	16.09355	15.59983	14.69611	16.58439	5955528.	16.35751	
Maximum	17.45985	15.89846	15.53785	17.26139	8028123.	17.30945	
Minimum	14.27504	14.75215	14.01712	14.66672	2551398.	15.82758	
Std. Dev.	0.950017	0.392607	0.494766	0.830082	1913931.	0.454893	
Skewness	-0.474808	-0.772408	0.519813	-0.979420	-0.410739	0.702052	
Kurtosis	2.683312	2.279108	2.262391	3.151489	1.823552	2.666950	
Jarque-Bera	0.375773	1.089804	0.609334	1.447502	0.772072	0.780912	
Probability	0.828709	0.579899	0.737369	0.484930	0.679746	0.676748	
Sum	143.6888	139.4164	132.3186	147.8008	51114689	147.7374	
Sum Sq. Dev.	7.220258	1.233122	1.958343	5.512284	2.93E+13	1.655420	
Observations	9	9	9	9	9	9	
-							

Source: Eview Output, 2018.

The normality test in table 8 above adopted is the Jargue-Bera (JB) test of normality. The JB test of normality is a large sample test and is based on the OLs residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis all the probability of Jarque-Bera statistic is greater than 5% i.e 0.828709(PAT), 0.579899(STD), 0.737369(LTD), 0.679746(TDT) and 0.676748(EQTY) are greater than 0.05, therefore we conclude that all the variable are normally distributed.



Figure 4: Line Graph - Industry group data (Champion Breweries Plc)

Source:E-view Output, 2018.

Figure 4 shows a line graph that is used to display data that changes continuously over time. It shows the changes of independent variables which include short term debt, long term debt, total debt and equity of Champion Breweries Plc on the dependent variable, Profit after Tax.

From the above graph, we can see that Profit after tax increased in 2012 and was low in 2007. Short term debt was high in 2010 and declined in 2017. Long term debt was high in 2017 and declined in 2007. Total debt was increased in 2013 and reduced in 2007. Equity increased in 2017 and decreased in 2007.

Okpe et al

www.iaajournals.org

Table 9: Descr	iptive Statisti	cs – Industri	es Data Serie	es (Champior	n Breweries H
	PAT	STD	LLTD	LTDT	EQTY
Mean	401511.8	15600142	10.63276	12.02570	2630787.
Median	77140.00	13683275	11.04814	9.620992	26089.00
Maximum	1336690.	34697653	12.69412	16.43627	8135460.
Minimum	3659.000	1627573.	9.298717	9.232982	3430.000
Std. Dev.	502562.8	12458887	1.231991	3.019247	3661689.
Skewness	0.815264	0.234064	0.222899	0.262321	0.629830
Kurtosis	2.206775	1.548863	1.586250	1.201193	1.471930
Jarque-Bera	1.506919	1.065599	1.007154	1.609188	1.797464
Probability	0.470735	0.586960	0.604365	0.447269	0.407085
Sum	4416630.	1.72E+08	116.9604	132.2828	28938661
Sum Sq. Dev.	2.53E+12	1.55E+15	15.17802	91.15852	1.34E+14
Observations	11	11	11	11	11

Source: Eview Output, 2018.

The normality test in table 8 above adopted is the Jargue-Bera (JB) test of normality. The JB test of normality is a large sample test and is based on the OLs residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis

probability of all the Jarque-Bera statistic is greater than 5% i.e 0.470735(PAT), 0.586960(STD), 0.604365(LTD), 0.447269(TDT) and 0.407085(EQTY) are greater than 0.05, therefore we conclude that all the variable are normally distributed.



Figure 5:Line Graph - Industry group data (Premier Breweries Plc)

Source: E-view Output, 2018.

Figure 5 shows a line graph that is used to display data that changes continuously over time. It shows the changes of independent variables which include short term debt, long term debt, total debt and equity of Premier Breweries Plc on the dependent variable, Profit after Tax.

From the above graph, we can see that Profit after tax increased in 2017 and was low in 2011. Short term debt was high in 2016 and declined in 2011. Long term debt was high in 2010 and declined in 2011. Total debt was increased in 2016 and reduced in 2011. Equity increased in 2017 and decreased in 2011.

	PAT	STD	LTD	TDT	EQTY
Mean	7986173.	27466348	9295521.	36770051	12685382
Median	19051.00	43326.00	28671.00	63625.00	71884.00
Maximum	33723730	1.21E+08	26026410	1.39E+08	44878177
Minimum	9904.000	32895.00	17259.00	51299.00	54776.00
Std. Dev.	11473855	41389162	11006041	49781323	17245613
Skewness	1.251139	1.287809	0.363699	0.958929	0.890527
Kurtosis	3.332467	3.319771	1.339232	2.522585	2.172784
Jarque-Bera	2.920466	3.087362	1.506660	1.790299	1.767536
Probability	0.232182	0.213593	0.470796	0.408546	0.413223
Sum	87847902	3.02E+08	1.02E+08	4.04E+08	1.40E+08
Sum Sq. Dev.	1.32E+15	1.71E+16	1.21E+15	2.48E+16	2.97E+15
Observations	11	11	11	11	11

Table 10: Descriptive Statistics – Industries Data Series (Premier Breweries Plc)

Source: Eview Output, 2018.

The normality test in table 8 above adopted is the Jargue-Bera(JB) test of normality. The JB test of normality is a large sample test and is based on the OLs residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis all the probability of Jarque-Bera statistic is greater than 5% i.e 0.232182(PAT), 0.213593(STD), 0.470796(LTD), 0.408546(TDT) and 0.413223(EQTY) are greater than 0.05, therefore we conclude that the all variable are normally distributed.

TEST OF HYPOTHESES

HYPOTHESIS ONE

Short term debt has positive andof the selected Brewery industries insignificant effect on the profit after taxNigeria.

Table 11: Regression Analysis showing effect of Short Term Debt on Profit after Tax of the five selected Brewery firms under review.

Dependent Variable: LPAT Method: Least Squares Date: 07/30/18 Time: 12:14 Sample: 2007 2061 Included observations: 55								
Variable	Coefficient	Std. Error	t-Statistic	Prob.				
C LSTD	-0.022251 0.879320	2.146415 0.129626	-0.010367 6.783497	0.9918 0.0000				
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.464732 0.454633 2.276746 274.7294 -122.2741 46.01584 0.000000	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		14.38825 3.082975 4.519058 4.592052 4.547285 0.411756				

Source: E-view Output, 2018.

PAT = $-0.022251 + 0.879320(STD) + \mu_{+}$

Based on Table 11, the interpretation of the results as regard the coefficient of various regressors' is stated as follows: The value of the intercept which is -0.022251shows that Profit after tax of the five selected firms will experience -

2% decrease when all other variables are held constant.

The estimate coefficients 0.879320{TDT} shows that a unit changes in total debt will cause 88% increase in Profit after Tax.

From the above table the coefficient of multiple determination also called R^2 has a value of 0.464732 which is also 46% change in dependent variable by

independent variable. This 46% shows that the model has goodness of fit. This also shows that Short term debt has a good outcome on the profitability of the selected firms in Nigeria.

From T-test result, we can see that Short term debt has a positive and significant effect on the profitability of the selected firms, this is shown with the t-test of STD (6.783497) with p-value of 0.0000.

From the same table the F-Statistics shows that short term debt has a positive and significant effect on the profitability of the selected firms which was represented by STD (46.01584) with p-value of 0.000000 which is higher than 5% margin of significance.

HYPOTHESIS TWO

Long term debt has positive influence on the profit after tax of the selected industries.

Table 12: Regression Analysis showing effect of Long Term Debt on Profit after Tax of the five selected Brewery firms under review.

Dependent Variable: LPAT Method: Least Squares Date: 07/30/18 Time: 12:22 Sample: 2007 2061 Included observations: 54 Variable Coefficient Std. Error t-Statistic Prob. С 0.374343 0.699628 0.535059 0.5949 LLTD 0.952629 0.046852 20.33286 0.0000 **R-squared** 0.888274 Mean dependent var 14.31048 Adjusted R-squared 0.886126 S.D. dependent var 3.056978 S.E. of regression 1.031586 Akaike info criterion 2.936405 Sum squared resid 55.33679 Schwarz criterion 3.010071 -77.28294 Log likelihood Hannan-Quinn criter. 2.964815 F-statistic 413.4253 Durbin-Watson stat 0.982148 Prob(F-statistic) 0.000000

PAT = $0.374343 + 0.952629(LTD) + \mu_{t}$

Based on Table 12, the interpretation of the results as regard the coefficient of various regressors' is stated as follows:

The value of the intercept which is 0.374343shows that Profit after tax of the five selected firms will experience 37% increase when all other variables are held constant.

The estimate coefficients 0.952629{LTD} shows that a unit changes in total debt will cause 88% increase in Profit after Tax.

From the above table the coefficient of multiple determination also called R² has a value of 0.888274 which is also 89% change in dependent variable by independent variable. This 89% shows that the model has goodness of fit. This also shows that Long term debt has agood outcome on the profitability of the selected firms in Nigeria.

From T-test result, we can see that Long term debt has a positive and significant effect on the profitability of the selected Okpe et al

firms, this is shown with the t-test of LTD(20.33286) with p-value of 0.0000.

From the same table the F-Statistics shows that Long term debt has a positive and significant effect on the www.iaajournals.org

profitability of the selected firms which was represented by LTD(413.4253) with p-value of 0.000000 which is higher than 5% margin of significance.

HYPOTHESIS THREE

Total debt has positive and significant effect on the profit after tax of the selected firms.

Table 13: Regression Analysis showing effect of Total Debt on Profit after Tax of the five selected Brewery firms under review.

Dependent Variable: PAT Method: Least Squares Date: 07/30/18 Time: 12:23 Sample: 2007 2061 Included observations: 55

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LTDT	-43480652 3564002.	10810351 668109.9	-4.022131 5.334455	0.0002 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.349345 0.337069 16005389 1.36E+16 -989.3870 28.45641 0.000002	Mean depend S.D. depende Akaike info cr Schwarz crite Hannan-Quir Durbin-Watso	dent var ent var iterion rion n criter. on stat	13025810 19657668 36.05044 36.12343 36.07866 1.367867

PAT = $-43480652 + 3564002(TDT) + \mu$.

Based on Table 13, the interpretation of the results as regard the coefficient of various regressors' is stated as follows: The value of the intercept which is -43480652shows that Profit after tax of

the five selected firms will experience -43480652% decrease when all other variables are held constant.

The estimate coefficients3564002{TDT} shows that a unit changes in total debt will cause 3564002% increase in Profit after Tax.

From the above table the coefficient of multiple determination also called R² has a value of 0.349345 which is also 35% change in dependent variable by independent variable. This 35% shows that the model has goodness of fit. This also shows that total debt has agood outcome on the profitability of the selected firms in Nigeria.

From T-test result, we can see that total debt has a positive and significant effect on the profitability of the selected firms, this is shown with the t-test of TDT(5.334455) with p-value of 0.0000.

From the same table the F-Statistics shows that total debt has a positive and significant effect on the profitability of the selected firms which was represented by TDT(28.45641) with pvalue of 0.000002 which is higher than 5% margin of significance.

HYPOTHESIS FOUR Equity has positive influence on the profit after tax of the firms in Nigeria.

Table 14: Regression Analysis showing effect of Equity on Profit after Tax of the five

selected Brewery firms under review.

Dependent Variable: P Method: Least Squares Date: 07/30/18 Time: Sample: 2007 2061 Included observations:	AT 5 12:24 : 54			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LEQTY	-44080280 3692417.	10773907 679928.3	-4.091392 5.430598	0.0001 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.361896 0.349625 15955314 1.32E+16 -971.2100 29.49139 0.000002	Mean depend S.D. depende Akaike info cri Schwarz crite Hannan-Quin Durbin-Wats c	lent var ent var iterion rion n criter. on stat	13228038 19784418 36.04482 36.11848 36.07323 1.406048

PAT = $-44080280 + 3692417(EQTY) + \mu_{+}$

Based on Table 13, the interpretation of the results as regard the coefficient of various regressors' is stated as follows: The value of the intercept which is -44080280shows that Profit after tax of the five selected firms will experience -44080280% decrease when all other variables are held constant.

Theestimatecoefficients3692417{EQTY}showsthatachangesinequitywillcausecauseinrofitafterTax.

From the above table the coefficient of multiple determination also called R² has a value of 0.361896 which is also

36% change in dependent variable by independent variable. This 36% shows that the model has goodness of fit. This also shows that equity has a good outcome on the profitability of the selected firms in Nigeria.

From T-test result, we can see that equity has a positive and significant effect on the profitability of the selected firms, this is shown with the t-test of EQTY(5.430598) with p-value of 0.0000.

From the same table the F-Statistics shows that equity has a positive and significant effect on the profitability of the selected firms which was represented by EQTY(29.49139) with p-value of 0.000002 which is higher than

5% margin of significance.

SUMMARY OF FINDING

This research has explored the effect of gearing on profitability of Brewery firms in Nigeria, using annual financial data from 5 Brewery firms in Nigeria from 2007–2017.

The following findings were made from the above analysis:

- 1. Short term debt has a positive and significant effect on the profitability of the selected firms, this is shown with the ttest of STD (6.783497) with pvalue of 0.0000.
- Long term debt has a positive and significant effect on the profitability of the selected

firms, this is shown with the ttest of LTD (20.33286) with pvalue of 0.0000.

- 3. Total debt has a positive and significant effect on the profitability of the selected firms, this is shown with the t-test of TDT (5.334455) with p-value of 0.0000.
- 4. Equity has a positive and significant effect on the profitability of the selected firms which was represented by EQTY (29.49139) with p-value of 0.000002 which is higher than 5% margin of significance.

CONCLUSION

This study paid greater attention to the effect of gearing on the profitability of Brewery Industry in Nigeria. From the above findings the researcher concludes that short term debt has a positive and significant effect on the profitability of the selected firms. Long term debt has a positive and significant effect on the profitability of the selected firms. Total debt has a positive and significant effect on the profitability of the selected firms. Equity has a positive and significant effect on the profitability of the selected Brewery firms.

RECOMMENDATIONS

ii.

Based on the finding of this study, it is recommended that:

 Companies should employ competent professionals to manage their debt capital portfolio. The management should always review and evaluate, on timely basis, the financial statement with a view to arresting mismatch of its debt-equity ratio to avoid financial burden that could emanate from such occurrence;

- iii. Excessive debt capital should be immediately repaid or deplored to earning assets;
- iv. Companies should create a Sinking Fund account to

provide for future repayment of borrowings. They should not wait until the maturity date before starting to look for funding

CONTRIBUTION TO KNOWLEDGE

This research found out that Short term debt has a positive and significant effect on the profitability of the selected firms.

It also found out that Long term debt has a positive and significant effect on the profitability of the selected firms

It also establishes that Total debt has a positive and significant effect on the profitability of the selected firms

It was also affirmed from the study that Equity has a positive and significant effect on the profitability of the selected firms. Prior research has shown that there is impact of gearing on the economic growth in Nigeria but with a lot of limitations. This research is first to postulate that it is better to use long term, short term and total debt to equity rather than gearing ratios to explain why exchange rates change over time.

Finally this has contributed to existing literature on the effect of gearing on the financial performance of firms in Nigeria.

REFERENCES

- 1. Ola, C.S., (2014), "*Principle and Techniques of Accountancy*" Ibadan, Macmillan PublicationsLimited.
- Olowe, R.A., (2007), "Financial Management- Concepts, Analysis and Capital Investment", 2ndEdition, Lagos, Britty Jones
- 3. AbbadiC. and Abu-Rub B. (2012) Recent development of the agency theory and capital structure.Economics and Finance Review, 1(6): 94-99.
- 4. Abor, J. (2005). The effect of capital structure on profitability: An empirical analysisof listed firms in Ghana. Journal of Risk Finance, 6, 438-447.
- 5. Ahmad, Z., Abdullah, N. M. H. and Roslan, S. (2012). Capital structure effect onfirms' performance: Focusing on consumers and industrials sectors on Malaysianfirms. International Review of Business Research Papers, 8(5): 137-155
- 6. Akintoye, I. R. (2008). Sensitivity of Performance to Capital Structure. EuropeanJournal of Social Science, 7(1): 163-144.
- AkinyomiJ., (2013), Applied linear statistical models. Chicago, USA:Irwin Company Inc.

- 8. Ali A., (2012),East Asian corporategovernance: A test of the relation between capital structure and firm performance.International Journal of Economics and Finance Studies, 3(2): 1-10
- 9. BabalolaG. B., (2014), Measuring Performance in Entrepreneurship

Research. Journal ofBusiness Research, 36, 15-23.

10. Barbosa, N. and Louri, H. (2005). Corporate Performance: Does Ownership Matter?A Comparison of Foreign- and Domestic-Owned Firms in Greece and Portugal.

COMPANIE	Year	PAT N (M)	STD N (M)	LTD N (M)	TDT N (M)	EQTY N (M)
S						
GUINNESS	2007	10,691,060	26,568,316	13,602,269	40,170,585	31,638,842
NIG.						
	2008	11,860,880	25,640,278	12,152,832	37,783,110	36,862,557
	2009	13,541,189	31,141,958	11,202,078	42,344,034	31,524,701
	2010	13,736,359	30,648,377	13,549,380	44,197,757	34,199,119
	2011	17,927,934	36,535,848	15,355,692	51,891,540	40,283,492
	2012	14,671,195	38,996,801	23,184,867	62,181,668	40,352,504
	2013	11,863,726	51,275,095	23,746,413	75,021,510	46,039,111
	2014	9,573,480	44,248,832	43,018,912	87,266,556	45,061,717
	2015	7,794,899	12,588,832	27,804,912	40,393,744	48,341,376
	2016	2,015,880	19,239,788	28,222,217	47,462,005	41,660,605
	2017	1,223,372	26,198,977	6,716,442	32,915,419	13,826,561
NIGERIA BRWERIES	2007	18,942,856	29,413,531	17,951,709	47,365,240	43,183,042
	2008	25,700,393	28,912,490	17,408,008	46,320,498	32,229,181
	2009	27,910,091	42,318,498	18,099,291	60,417,789	46,570,094
	2010	30,332,118	44,879,962	19,337,308	64,217,270	50,172,162
	2011	38,434,033	60,796,538	20,806,392	81,602,930	49,279,276
	2012	38,042,714	86,834,468	73,351,269	160,185,73 7	93,447,892
	2013	43,080,349	100,295,715	40,104,733	140,400,44	112,359,18
	2014	42,520,253	114,025,572	63,239,328	177,264,90	171,964,26
	0000				0	3
	2015	38,049,518	140,655,590	43,818,068	184,473,65	172,233,46
					8	5

APPENDIX

www.iaajournals.org

	2016	28,396,777	144,856,800	56,977,573	201,834,37	165,805,54
					3	2
	2017	33,009,292	156,698,905	47,876,701	204,575,60	178,150,93
					6	4
INTERNATI ONAL BREWERIES	2007	118,214,516	1,635,499,0 75	0	1,635,499,0 75	1,308,061,9 00
	2008	5,597,612	22,480,451	3,973,648	10,043,523	7,702,178
	2009	4,806,907	28,158,890	5,955,528	9,639,695	9,757,563
	2010	2,412,343	31,370,833	6,886,614	7,478,808	38,257,447
	2011	1,685,342	2,342,470	7,656,883	9,999,353	2,516,680
	2012	1,685,342	10,153,591	2,551,398	12,704,989	1,583,323
	2013	2,506,490	7,854,517	5,802,072	13,656,589	9,380,173
	2014	2,105,500	6,604,447	6,496,170	13,100,617	0
	2015	1,946,490	9,975,208	8,028,123	18,003,331	12,168,259
	2016	2,652,748	15,940,734	3,543,981	19,484,715	13,997,391
	2017	1,223,372	26,198,442	6,716,442	32,915,419	13,826,561
CHAMPION BREWERIES	2007	4,136	22,480,031	10,924	12,819	24,483
	2008	5,285	28,158,890	11,970	10,372	25,770
	2009	3,659	31,370,833	12,881	12,536	24,480
	2010	4,598	34,697,653	12,483	15,078	26,089
	2011	4,623	20,556,000	14,662	14,921	32,591
	2012	1,336,690	10,166,205	62,995	10,229	3,430
	2013	1,178,025	13,683,275	62,827	13,746,102	3,430
	2014	754,523	3,578,929	143,021	3,721,950	5,870,431
	2015	77,140	3,073,998	133,525	3,207,523	7,121,637
	2016	530,389	2,208,173	82,207	2,290,380	7,670,860
	2017	517,562	1,627,573	325,828	1,953,401	8,135,460
PREMIER BREWERIES	2007	19,051	43,326	17,259	60,585	54,776
	2008	11,382	33,223	18,076	51,299	54,916
	2009	12,602,109	22,012,398	14,695,469	36,707,867	10,543,935
	2010	9,783,578	19,455,299	26,026,410	45,481,709	14,865,353
	2011	9,904	35,232	20,585	55,817	58,274
	2012	11,060	38,753	24,872	63,625	62,604
	2013	10,445	32,917	23,386	56,303	64,139
	2014	14,904	32,895	28,671	61,566	71,884

www.iaajournals.org

2015	23,736,771	59,731,857	21,476,122	81,297,979	38,007,074
2016	7,924,968	121,033,434	17,674,423	138,707,85	30,878,075
				7	
2017	33,723,730	79,680,495	22,245,456	101,925,95	44,878,177
				1	