Financial Ratios as a Tool for Profitability in Aryton Drugs

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Abstract
This study is intended to evaluate the determinants of profitability in Ayton drugs. The study employed a causal design and secondary data sources were used and data was analyzed using statistical package. Correlation, regression analysis and financial ratio analysis was used. The p-test and f-test was calculated to show if the independent variables have significant relationship with the dependent variable. The research used the multiple linear regression method. The findings show that Aryton Drugs were not liquid enough and had return on assets were not utilized properly, have a serious problem in collecting debt from customers or less liquid debtors and their operations were financed more by debt. The study further revealed that liquidity had a positive and insignificant relationship with profitability while leverage and efficiency had a negative and insignificant relationship with profitability. The study recommends management of the Aryton Drugs to maintain a high debtor's turnover ratio by giving discounts to enable quick payment because it will help in increasing their investment by reinvesting the funds collected from their customers and should utilize its assets efficiently in generating more income for the company.
Keywords: Liquidity, Leverage, Efficiency, Profitability, Aryton Drugs

1.0 Background of the study
The basic reason why firms exist is due to profitability. Profit is the life blood of any business which enables business remains a going concern. Profitability is the primary goal of all business ventures. Without profitability, the business will not survive in the long run; Hofstrand (2003).

One of the most frequently used tools of financial ratio analysis is profitability ratio which is used to determine the company's bottom line and its return to investors. Profitability measures are important to company managers and owner alike; Peavler (2016). Okwuosa (2005) sees ratio analysis is one number expressed in terms of another to show the relationship between them. He adds that in financial accounting and reporting, it is generally agreed that there are certain relationships between items shown in the profit and loss account and those in the balance sheet as well as between items in these statements. Therefore, ratios are used as a means of expressing these relationships. Nweze (2011) defines ratio analysis as financial statement analysis uses as a primary tool, ratios, which relate two figures applicable to different categories. Chandra (2008) adds that financial ratio analysis is a study of ratios between various items or groups of items in financial statement. Pandey (2010) sees financial analysis as a process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the firm by properly establishing relationships between the items of the balance sheet and the profit and loss account. He adds that ratio analysis is a powerful tool of financial analysis. A ratio is used as a benchmark for evaluating the financial position and performance of a firm. So, the relationship between two accounting figures, expressed mathematically, is known as a financial ratio (or simply as a ratio).

1.1 Statement of the Problem
Literatures have shown that most of the studies conducted on financial ratio analysis and corporate profitability dwell largely on financial sectors; Oloboyede (2007). However, inadequate financial ratio analysis in other industries like the pharmaceutical companies can lead to a negative effect on their profitability. A look at the annual reports of Pharmaceutical companies in Ghana shows large fluctuations in the profits. This variation of profit suggests that some specific factors play crucial roles in influencing industries profitability. It is therefore essential to identify these factors and how they relate to corporate profitability. It is sad to note that in developing countries such as Ghana, only few studies have been carried out on the issue of profitability of Pharmaceutical industries, hence there is a need for more studies in industries like the Pharmaceutical industry in developing countries.

1.2   Objectives of the Study
The main objective of the study is to find the effect of financial ratio on profitability in Ayrton drugs. The specific objectives are:

❖ To examine the effect of liquidity on profitability
❖ To examine the effect of leverage on profitability
❖ To examine the effect of efficiency on profitability

1.3 Research Hypothesis

H_0: There is no significant relationship between liquidity and profitability
H_1: There is a significant relationship between liquidity and profitability
H_0: There is no significant relationship between leverage and profitability
H_2: There is a significant relationship between leverage and profitability
H_0: There is no significant relationship between efficiency and profitability
H_3: There is a significant relationship between efficiency and profitability

1.4 Scope of the Study

According to Akpakpan (2005), scope of the study is the limits or boundary lines of the study. It is the areas covered by the research or the extent the researcher would go. In view of the impossibility of covering every financial statement, this study is therefore restricted to the analysis of the income statement and the balance sheet by means of financial ratios.

The scope of the study is to assess the financial performances of Ayrton Drugs for the periods 2010-2015. The periods were chosen because the researcher wants to assess the more recent profitability of the company under study. The concept of ratio analysis and techniques were chosen. The scope in terms of location can be found in Accra, Greater Accra Region.

2.0 Literature
2.1 Concept of Financial Ratios Analysis

Dansby et al. (2000:845) defined ratio as "fractional relationship of one number to another". According to Betty J. Simkins (2015) "Accounting ratios describe the significant relationship which exists between figures shows on a balance sheet in a profit and loss account in a budgetary control system or in any other part of accounting organization". On the other hand, Needles et al. (1996:795) defined ratio analysis as "a technique of financial analysis in which meaningful relationship is shown between the components of financial statements". Ratio analysis involves methods of calculating and interpreting financial ratios to analyze and monitor firm's performance. The basic inputs to ratio analysis are the firm's income statement and balance sheet; Gitman (2009). Ratios play a pivotal role in the management accounting function of any organization. Madura (2009) said the main objective of ratio analysis is to use the results for decision-making purposes. It also helps identify and highlights the areas of poor performance and areas of satisfactory performance; James, (2013). Ratio analysis is often expressed proportionately to show the relationship between figures in the financial statements. It is the systematic use of ratio to interpret the financial statements so that the strength and weaknesses of a firm as well as its historical performance and current financial condition can be determined.

Financial ratio analysis is neither sophisticated nor complicated. It is nothing more than simple comparisons between specific pieces of information pulled from a company's balance sheet and income statement; Auerbach (1999).
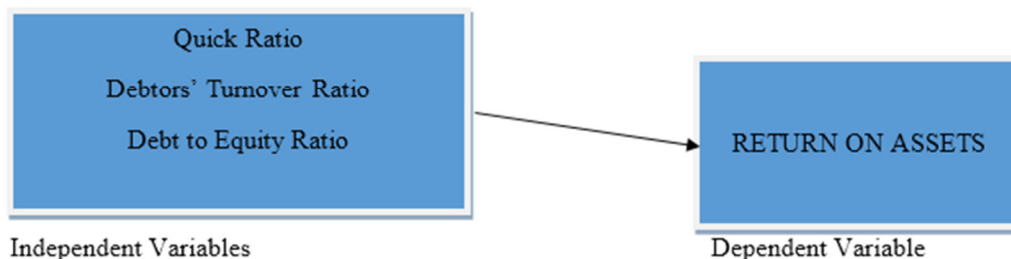
2.2 Profitability

The word Profitability can be said to be a modulation of two words profit and ability. In other words, it referred to Earning power of operating efficiency of the concerned investment concept of profitability which may be defined as the ability of a given investment to earn a return from its use. Measurement of profitability is the overall measure of performance profits known, as bottom lines are also important for financial institutions. Analyzing and interpreting various types of profitability ratios can obtain creditor performance of portability. According to Finance Dictionary, "Profitability is defined as the potential of a company to exceed its overall revenue from its total expenses which results in profit generation".

Dave (2012) defines profitability as an ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It shows how efficiently the management can make profit by using all the resources available in the market. Profitability is also the ability of a given investment to earn a return from its use. However, the term "profitability" is an index of efficiency and management guide to greater efficiency. Although profitability is an important yard stick for measuring the efficiency and conversely, a proper degree of efficiency can be accompanied by an absence of profit. The net profit figure simply reveals a satisfactory balance between the values received and the values given. The change in operational efficiency is to match one of the factors on which profitable of an enterprise largely depends. Furthermore, there are many other factors besides efficiency which affect the profitability. Carole (2012) says profitability means that the revenue exceeds the expenses of the business; this is different from comparing assets and liabilities on a balance sheet to

determine financial position. A profitable business may be in a weak financial position and a business with a strong financial position may not be profitable; https://www.inc.com/encyclopedia. He adds that it must be evaluated on both a long term and a short-term basis because business goals and decision may differ depending on the time frame used.

2.3 Conceptual Framework

| Quick Ratio |
| Debtors' Turnover Ratio |
| Debt to Equity Ratio |

Independent Variables

RETURN ON ASSETS

Dependent Variable

Sources: Enekwe (2015), Rehman &Khidmat (2014)

2.3.1 Return on Assets

According to Lawrence J. Gitman (2009: 68), Return on Asset (ROA) is a measure of the overall effectiveness of management in generating profits with available assets. Return on Assets (ROA) is an indicator of the success of the company for the management of wealth (assets) owned by the company, so that by increasing the ratio of Return on Assets (ROA) reflect the company's performance in managing assets held, so that it can generate profits or earnings. This ratio is used to measure the soundness of a company to generate earnings of all assets owned by the company. Emekekwue (2008) states that return on assets is a ratio that seeks to measure the amount of profit generated from the entire assets of the firm.

2.3.2   Quick Ratio

This measure the ability of a firm to pay all of its current liabilities if they come due immediately. (Dansby et al., 200: 828). It is a better measure of liquidity because unlike current ratio, it omits stock or inventory (which may not be easily turned into cash) from the current assets to get quick assets. It is measured by Current Assets-Inventory/ Current Liability. The ratio provides a measure of the capacity of the business to meet its short-term obligations without any flaw. Normally, it is advocated to be safe to have a ratio of 1:1 as unnecessarily low ratio will be very risky and a high ratio suggests unnecessarily deployment of resources in otherwise less profitable short-term investments.

2.3.3   Debtors's Turnover

Leahy (2012) sees debtors' turnover ratio as accounts receivable variable that measures the impact of a company's credit function on profitability. This impact includes the risk associated with extending credit. The higher the debtor's turnover, the better, since this means that the company is collecting quickly from customers. These funds can then be invested for a return. The drop in the debtors' turnover ratio is significant, indicating a serious problem in collecting from customers. Therefore, a careful analysis of the company's credit policy is required. It is measured by Sales/ Trade debtors

2.3.4   Debt to Equity Ratio

Drake (1999) defines debt to equity as a financial ratio that indicates the relative proportion of shareholders' equity and debt used to finance a company's assets. The debt to equity ratio is a financial ratio indicating the relative proportion of equity and debt used to finance a company's assets which is an indicator of the financial leverage (Enekwe 2015). It compares a company's total liabilities to its total shareholders' equity. From security point of view, capital structure with less debt and more equity is considered favourable as it reduces the chances of bankruptcy. Normally, it is considered to be safe if debt equity ratio is 2:1. However, it may vary from industry to industry. It is measured by Total Liabilities/ Shareholders' Equity.

3.0 Methodology

3.1   Research Type

The study was quantitative in nature as the researcher knows exactly what variables to investigate and how they should be investigated. Aliaga & Gunderson (2002) defined quantitative research as explaining phenomena by collecting numerical data that are analysed using mathematically based methods. Quantitative methods are used to examine the relationship between variables with the primary goal being to analyze and represent that relationship mathematically through statistical analysis. (https://cirt.gcu.edu/research/developmentresources).

3.2   Research Design

The study focuses on how data from the annual reports of Aryton Drugs Manufacturing Company listed on Ghana Stock Exchange (GSE).   This was a causal study that relies on control factors. Causal studies are

concerned with learning why, that is, how one variable produces changes in another (Cooper & Schindler, 2003). This study seeks to establish the relationships among variables.

3.3 Population, Sample and Sampling Technique
As Grinnell and William (1990:118), put it that population can be defined as the totality of persons or objects with which the study is concerned while Akinade and Owolabi (2009:72) defined population as "the total set of observations from which a sample is drawn". The population is the pharmaceutical industry which has been listed on the Ghana Stock Exchange. The best technique suited for this study is purposive sampling because the researcher was interested on how the young pharmaceutical company was performing as compared the older on in the market who have been listed on the GSE.

3.4 Data Collection Techniques
Secondary sources of data were utilized. Secondary sources of data were collected from the firm's annual report and the GSE Fact Book. Other documents used were available in the library, on the internet, memoires. Secondary data was used because of the accessibility to inaccessible subjects that will allow a research on subjects which the researcher do not have physical access and also for longitudinal analysis, that is, documents used suitable to study over a long period of time.

3.5 Method of Data Analysis
Correlation, regression analysis and financial ratio analysis, normality test and descriptive statistics were used. The p-test and f-test was calculated to show if the independent variables have significant relationship with the dependent variable. The research will use the multiple linear regression method. Briefly speaking, the goal of the multiple linear regressions is to point out the relation between a dependent variable and a great deal of independent variables. With the help of multiple linear regressions, it is possible to determine to what extent a part of the total variation of the dependent variable is influenced by the variation of the independent variables.
The general form of the equation of the multiple linear regression models to be utilized;
$$ROA = B_0 + B_1 QR + B_2 DTR + B_3 D/E + \varepsilon$$
Where; ROA= the dependent variable; i.e. Profitability in the study, estimated by Return on Assets (ROA)
QR= Quick Ratio
DTR= Debtors' Turnover Ratio
D/E= Debt to Equity Ratio
B_0 = constant value of the equation
B_1, B_2, B_3= coefficients of the independent variables
ε= error term of equation

3.6 Measurement of Variables
The dependent variable used is Return on Assets (ROA) which is a profitability ratio while the independent variables are quick ratio (QR), debtors' turnover (DTR)and debt to equity (D/E).

Variables	Method used for Calculation
Return on Assets (ROA)	Net profit before tax/ Total Assets
Quick Ratio	Current Assets-inventory/ Current Liability
Debtors' turnover ratio (DTR)	Sales/ Trade debtors
Debt to Equity	Total Liabilities/ Shareholders' Equity

3.7 Data Analysis
Quantitative data analysis was done on a personal computer using Statistical Package for Social Science (SPSS) software. The estimation methods to be utilized are financial ratio analysis method, descriptive statistics, correlation analysis and regression analysis using the t- statistics and f- statistics test.
In order to arrive at a logical conclusion, financial ratios of five (5) years were utilized.
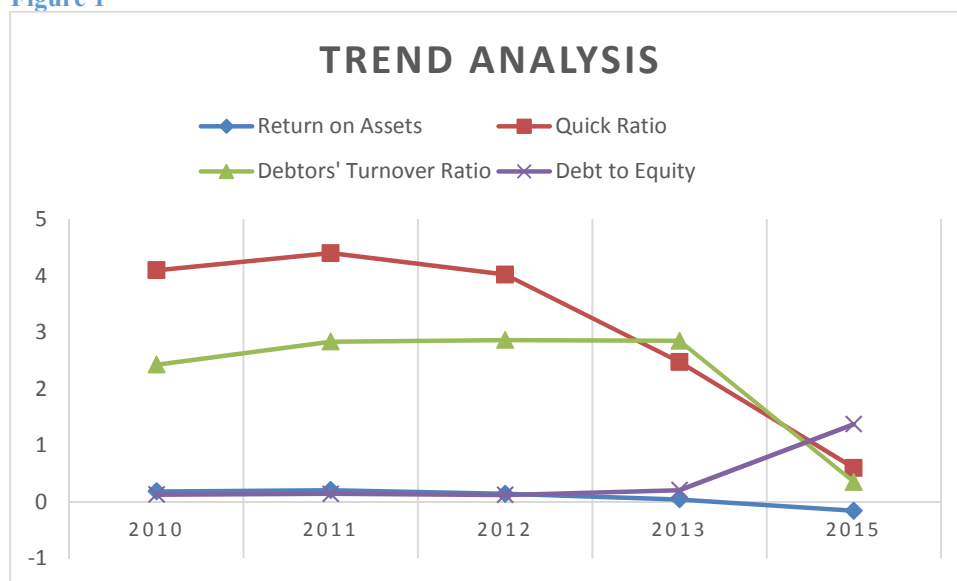
4.0 Results and Discussion
4.2 Ratio Analysis
Table 1: Ratios analysis for Aryton Drugs

RATIOS	2010	2011	2012	2013	2015
ROA	0.19	0.21	0.14	0.04	-0.16
QR	4.10	4.40	4.02	2.47	0.60
DTR	2.43	2.83	2.86	2.85	0.35
D/E	0.13	0.14	0.13	0.21	1.37

Data Source: Field Survey May, 2017

Figure 1

Data Source: Field Survey May, 2017

Return on assets shows a percentage of how profitable a company's assets are used in generating revenue. ROA has increased from 0.19 in 2010 to 0.21 in 2011 and reduced drastically over the years. This implies that management is not using its assets efficiently to generate profit.

Quick ratio (QR) of Aryton Drugs increased from 2010-2011 then reduced in 2012 and continued reducing over the years. This implies that Aryton Drugs is not able to convert its current assets to cash to pay its debts.

Debtors' turnover ratio indicates the number of times debtors are turned over a year. DTR increased over the years significantly. However, it dropped slightly in 2013 and reduced more in 2015. This implies there is inefficient management of debtors or less liquid debtors.

Debt to equity ratio indicates the proportionate claims of owners to outsiders against the firm assets. Debt to equity ratio increased from 2010-2011, which means more debt was used to finance the company's operations. In 2012, it reduced which implies more equity was used to finance the company's operations making the firm less risky to investors. in 2013 and 2015, there was further increase which means more debts were used; exposing the company to high financial risks. This implies that more debts were used in financing the company's operations.

4.3 Descriptive Statistics

Table 2 below provides the descriptive statistics of the variables (mean, median, mode, standard deviation, variance, maximum, minimum, standard error of the mean, kurtosis, skewness)

Table 2 **Statistics**

		Return on Assets	Quick Ratio	Debtors' Turnover Ratio	Debt to Equity
N	Valid	5	5	5	5
	Missing	0	0	0	0
Mean		.0853	3.1174	2.2635	.3959
Median		.1448	4.0200	2.8300	.1400
Mode		-.16[a]	.60[a]	.35[a]	.13[a]
Skewness		-1.393	-1.277	-2.090	2.215
Std. Error of Skewness		.913	.913	.913	.913
Kurtosis		1.506	.620	4.408	4.921
Std. Error of Kurtosis		2.000	2.000	2.000	2.000
Minimum		-.16	.60	.35	.13
Maximum		.21	4.40	2.86	1.37

a. Multiple modes exist. The smallest value is shown

Data Source: Field Survey May, 2017

The result from table 2 shows that on the average of the five years utilized, return on assets is 8.53% which shows that only 8.53% of return on assets within the five years was used to generate profit, quick ratio is 3.1174, debtors' turnover ratio is 2.2635 and debt to equity is 0.3959.

A positive skewness shows a positively skewed distribution within the period. This distribution will tend to have a mean being greater the mode and the tail of the distribution will be longer on the right. A negatively skewed distribution of the profit within the period will have the mode being greater than the mean and the tail of the distribution will be longer on the left. Return on assets, quick ratio and debtors' turnover ratio was negatively skewed while debt to equity ratio was positively skewed.

Kurtosis indicates the degree of "flatness" or "peakedness" in a distribution relative to the shape of normal distribution, in a symmetric bell curve, the mean, median, and mode are all the same value. The coefficient of Kurtosis is a measure for the degree of tailedness in the variable distribution (Westfall, 2014). A positive kurtosis shows a leptokurtic distribution and a negative kurtosis shows a platykurtic distribution, platykurtic have dispersed distribution while leptokurtic distributions are more clustered around the mean. The leptokurtic distribution of return on assets shows that the profit made by the company within the five-year period is closer to the average profit made.

The leptokurtic distribution of quick ratio shows that almost all current assets within the five years were converted into cash or quick ratio within all the years were close to or clustered around the mean quick ratio.

The leptokurtic distribution of debtors' turnover ratio shows that company was able to retrieve debts in each year or the debtor's turnover ratio for each year was close to the average debtor's turnover ratio for the five-year period.

The leptokurtic distribution of debt to equity ratio shows that the average debt to equity ratio are close to that of the individual years thus in all the years the company reduced operations that are financed by debt.

4.4 Test for Normality
Table 3: Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Return on Assets	.862	5	.236
Quick Ratio	.837	5	.157
Debtors' Turnover Ratio	.665	5	.004
Debt to Equity	.600	5	.001

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction
Data Source: Field Survey May, 2017

Shapiro-Wilk test was used to examine the normality of the variables. Shapiro Wilk test is used to evaluate statistically whether the difference between the observed distribution and a theoretical normal distribution is small enough or due to chance. If it could be due to chance, you would treat the distribution as being normal and if it is small enough, the distribution is being treated as not normal. The P values of ROA and QR being greater than the level of significance ($P > 0.05$) at the 5% level of significance shows that the return on assets and quick ratio are normally distributed and the difference between the observed values and the theoretical normal distribution is due to chance. The P values of DTR and D/E being lesser than the level of significance ($P < 0.05$) at the 5% level of significance shows that debtors' turnover ratio and debt to equity are not normally distributed and the difference between the observed values and the theoretical normal distribution is small enough.

4.5 Relationship Between Variables
4.5.1 Correlation Analysis
In order to establish the relationship among the different variables in the study, Pearson correlation analysis was conducted on the Return on Asset and Quick Ratio, Debtors' Turnover Ratio and Debt to Equity Ratio indicators. Table 4 demonstrates the correlation matrix of return on asset (ROA), quick ratio (QR), debtors' turnover ratio (DTR) and debt to equity ratio (D/E). The correlation shows that there is strong positive relationship between quick ratio and return on asset at the 1% level of significance. Therefore, an increase in quick ratio would lead to an increase in return on asset and a decrease in quick ratio would lead to a decrease in return on assets.

There is also a strong positive relationship between debtors' turnover ratio and return on asset. Therefore, an increase in debtors' turnover ratio would lead to an increase in return on asset and a decrease in debtors' turnover ratio would lead to a decrease in return on asset. Thus, if the company is able to convert more of their current asset into cash their profit will increase and vice versa.

Table 4: Correlation

		Return on Assets	Quick Ratio	Debtors' Turnover Ratio	Debt to Equity
Return on Assets	Pearson Correlation	1	.994[**]	.866	-.927[*]
	Sig. (2-tailed)		.001	.058	.023
	N	5	5	5	5
Quick Ratio	Pearson Correlation	.994[**]	1	.847	-.908[*]
	Sig. (2-tailed)	.001		.070	.033
	N	5	5	5	5
Debtors' Turnover Ratio	Pearson Correlation	.866	.847	1	-.980[**]
	Sig. (2-tailed)	.058	.070		.003
	N	5	5	5	5
Debt to Equity	Pearson Correlation	-.927[*]	-.908[*]	-.980[**]	1
	Sig. (2-tailed)	.023	.033	.003	
	N	5	5	5	5

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Data Source: Field Survey May, 2017

Also, there is a strong negative relationship between debt to equity and return on assets. Therefore, an increase in debt to equity would lead to a decrease in return on assets and a decrease in debt to equity would lead to an increase in return on asset. Thus, if operations that are financed by debt are reduced the company's profit will increase and vice versa

Return on assets was negatively skewed which implies that majority of the company's assets were used to generate profit in most of the years within the five-year period.

Quick ratio which was also negatively skewed implies that the company was able to convert more their current asset into cash and a negatively skewed debtors' turnover ratio implies the company was able to collect more debts within the five-year period. Finally, debt to equity ratio was positively skewed which implies that the operations that are being financed by debt in the company was less within the five years.

A strong positive correlation between debtor's turnover ratio and return on assets shows that if the company is able to retrieve more debts from customers their profitability will increase and vice versa

Furthermore, there is a strong positive relationship between debtors' turnover and return on assets while debt to equity has a strong negative relationship with both quick ratio and debtors' turnover ratio.

4.5.2   Regression Analysis

This includes the model summary, ANOVA table and regression coefficients

Table 5 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.046	.279		-.165	.896		
	Quick Ratio	.076	.023	.816	3.326	.186	.128	7.837
	Debtors' Turnover Ratio	-.028	.071	-.207	-.398	.759	.028	35.260
	Debt to Equity	-.106	.179	-.389	-.589	.661	.018	56.788

a. Dependent Variable: Return on Assets

Data Source: Field Survey May, 2017

This table generated the specific regression equation as

ROA= 0.816QR- 0.207DTR- 0.389D/E

The regression coefficient for quick ratio of return on asset (B_1) = 0.816 implies that 1% increase in quick ratio will increase return on asset by 81.6% holding DTR and D/E constant and its P value of 0.186 which is greater than the 0.05 level of significance shows that there is not enough statistical proof that an increase in quick ratio will lead to an increase in return on asset and vice versa, thus the null hypothesis has to be accepted.

The regression coefficient for debtors' turnover ratio of return on asset (B_2) = 0.207 implies that 5%

increase in debtors' turnover ratio will decrease return on asset by 20.7% holding QR and D/E constant and its P value of 0.759 which is greater than the 0.05% level of significance shows that there is not enough statistical proof that an increase in debtors' turnover ratio will decrease return on asset, thus the null hypothesis has to be accepted. This result is consistent with the study of Okwo et al (2012 and Dave (2012). Lazaridis and Tryfonidis (2006) also found significant and negative relationship between accounts receivable and profitability.

The regression coefficient for debt to equity ratio of return on asset (B_3) = 0.389 implies that 5% increase in debt to equity ratio will decrease return on asset by 38.9% holding QR and DTR constant and its P value of 0.661 which is greater than the 0.05% level of significance shows that there is not enough statistical proof that an increase in debt to equity will decrease return on asset, thus the null hypothesis has to be accepted. This result is consistent with the study of Enekwe (2015), Akinmolegun (2012) while Eunju and Soacheong (2005) found insignificant and positive relationship between debt to equity ratio and performance. Rashimi and Sinha (2004), Ukachi (2011), Alcok et.al (2013), Enekwe et al (2014), Khidmat & Rehman (2014) and Napompech (2012) found insignificant and negative relationship between debt ratio and profitability.

The omission of the constant value in the regression equation shows that return on asset cannot be achieved in the study without the influence of the independent variables.

Finally, the tolerance value of less than 0.20 or 0.10 indicates a multicollinearity problem. In the above table the tolerance values of all independent variables are 0.128, 0.028 and 0.018 which shows that the tolerance level is not moderate and not good and have a problem of multicollinearity. The reciprocal of the tolerance is known as the Variance Inflation Factor (VIF). The VIF of 5 or 10 and above indicates a multicollinearity problem. In the above table VIF values of independent variables are 7.836, 35.260 and 56.788 which shows that the VIF level have a problem of multicollinearity, thus independent variables have an influence on each other and will affect or influence the outcome of return on asset in the study.

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996[a]	.992	.969	.02609

a. Predictors: (Constant), Debt to Equity, Quick Ratio, Debtors' Turnover Ratio
Data Source: Field Survey May, 2017

Regression coefficient R= 0.996 explains there is a strong positive relationship between the independent variables and return on asset, thus an increase in the independent variables will lead to an increase in return on asset and vice versa.

The adjusted R^2=0.969 shows an increase in the independent variables will increase return on assets by 96.9% and vice versa. Thus, 96.9% variation in return on asset is explained by quick ratio, debtors' turnover ratio and debt to equity ratio and 3.1% could be due to other factors that were not considered in the study.

Table 7   ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.088	3	.029	43.083	.111[a]
	Residual	.001	1	.001		
	Total	.089	4			

a. Predictors: (Constant), Debt to Equity, Quick Ratio, Debtors' Turnover Ratio

b. Dependent Variable: Return on Assets
Data Source: Field Survey May, 2017

Table 4.7 shows the influence of the independent variables are not statistically significant at the 5% level of significance on return on asset with a P-value of 0.111 being greater than the level of significance (5%) and a calculated F value of 43.083 being lesser than the theoretical F value, thus there is not enough statistical evidence to conclude that the independent variables have a significant relationship with return on asset.

5.0 Summary Findings, Conclusion and Recommendations
5.1   Summary Findings
The effect of liquidity on profitability
From the findings, liquidity has a positive and strong relationship on profitability. Evidence by the p-value shows that liquidity has a positive and insignificant relationship on profitability.
The effect of leverage on profitability
The findings showed that leverage had a strong negative relationship with profitability. Evidence by the p-value shows that leverage has a negative and insignificant relationship on profitability which was consistent with results from Enekwe et al (2014), Khidmat & Rehman (2014).

The effect of efficiency on profitability
From the findings, efficiency has a strong positive relationship with profitability. The p-value shows that efficiency has a negative and insignificant relationship on profitability which was consistent with the study of Okwo et al (2012 and Dave (2012).

Ratio trend analysis
The findings showed that return on assets decreased over the years which tells that assets are not being used efficiently to generate profit, quick ratio also decreased which means the company is not liquid to pay its currents liabilities or turn its current assets quickly to cash, debtors' turnover had fluctuations over the years and this indicates a serious problem in collecting debt from customers or less liquid debtors and debt to equity ratio increased over the years which implies that operations of aryton drugs are more financed by debt.

5.2 General findings
The correlation showed that there was strong and positive relationship between quick ratio and return on assets and also debtors' turnover ratio and return on assets while there was strong negative relationship between debt to equity ratio and return on assets. Also 96.9% variation in return on asset is explained by quick ratio, debtors' turnover ratio and debt to equity ratio and 3.1% could be due to other factors that were not considered in the study.

There was multicollinearity among the independent variables thereby the independent variables had influence on each other and will affect or influence the outcome of return on asset in the study which could have made the relationship between the variables and return on assets insignificant.

The anova table which shows the overall influence of the independent variables on return on assets was statistically insignificance.

Finally, the values for return on assets and quick ratio were normally distributed at 5% level of significance while debt to equity ratio and debtors' turnover ratio was not normally distributed.

5.3 Conclusion
The research was based on the determinants of profitability with the use of ratio analysis in a pharmaceutical company. It sought to find the impact of liquidity, leverage and efficiency on profitability.
Liquidity of the company reduced over the years. From the findings, liquidity has a positive and strong relationship on profitability and the p-value shows that liquidity has a positive and insignificant relationship on profitability.

Leverage has increased over the years which imply that more debts are used to finance their operations. The findings showed that leverage had a strong negative relationship with profitability and the p-value shows that leverage has a negative and insignificant relationship on profitability.

Finally, from the findings, efficiency has a strong positive relationship with profitability and the p-value shows that efficiency has a negative and insignificant relationship on profitability.

5.4 Recommendation
Based on the findings, the following recommendations were made;

❖ Liquidity and profitability are two very important and vital aspects of corporate business life. No firm can survive without liquidity. A firm not making profit may be considered as sick but, one having no liquidity may soon meet its downfall and ultimately die. Management of Aryton Drugs should ensure that liquidity is neither excessive nor inadequate because excessive liquidity indicates accumulated idle funds do not earn any profit for the firm, and inadequate liquidity not only adversely affect the credit worthiness of the firm, but also interrupts the production process and hampers its earning capacity to a great extent.

❖ The liquidity position of the firm depends on the quality of debtors to a great extent. Therefore, management of the Aryton Drugs should maintain a high debtor's turnover ratio by giving discounts to enable quick payment because it will help in increasing their investment by reinvesting the funds collected from their customers.

❖ Management should utilize its assets efficiently in generating more income for the company.

❖ Debt to equity ratio shows the dependence on debt (borrowing) finance compared with equity funding. The greater the reliance on debt financing, the greater the level of interest and the greater the risk from exposure to rising interest rates. Aryton Drugs should reduce its dependence on debts and get more funds from the owners to manage its operation.

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