



Vol. 9, Issue 2, 46-63, 2020

Academic Journal of Accounting and Economic Researches

ISSN: 2333-0783 (Online)

ISSN: 2375-7493 (Print)

ajaer.worldofresearches.com

Determinants of Profitability: A Study on Flour Manufacturing Companies in Hosanna Town

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ABSTRACT

In Ethiopia the contribution of manufacturing companies to economic growth is so minimal as compared to agriculture and services sectors. They are experiencing low return which is an indicator of poor financial performance. However, to remain competitive in the globalized economy, having good financial performance is highly imperative. Therefore, this study is to identify the determinants of flour manufacturing companies' profitability in Hosanna town. The explanatory variables used in this study were firm size, leverage, liquidity, fixed asset turnover, operating expense and sales growth rate. The dependent variables were ROA and ROE. The data was collected from 6 companies for period of 7 years from audited financial statements of the companies. Purposive sampling technique was used to select the sampled companies from the period of 2012-2018, consisting of 6 companies with 42 observations. Quantitative research approach was adopted. The panel regression was used to observe relationships among the dependent and independent variables. The data were analyzed using descriptive statistics, correlation analysis and multiple linear regression analysis. The results of panel least square regression analysis showed that all independent variables explain 74% and 80% of the variance on ROA and ROE respectively where significant at 5% levels. Further, firm size, liquidity and sales growth rate have statistically significant and positive impact on ROA and ROE. On the other hand, operating expense has a negative and statistically significant impact on ROA and ROE. However, the relationship for leverage and fixed asset turnover is found to be statistically insignificant. Based on the findings, the study recommends that flour manufacturing companies must work towards improving their liquidity ratio. Therefore, the manager should ensure that their firms have adequate liquidity levels and increase their size of firm. Firms should strive to reduce their operating expenses and improving sales growth rate because they have much influence in profit generation on both return on equity (ROE) and return on asset (ROA) as indicated by the regression results. Finally, further studies should incorporate external factors such as government tax regulation, GDP and inflation.

Keywords: Profitability, Firm Specific Variables, And Flour Manufacturing Companies.

INTRODUCTION

Profit is the driving force of the firm as well as the survival indicator of a firm. The accomplishment of its goal is entirely dependent on its profitability. The profitability is the main

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To cite this article: Lalisho, D. L., Sintayehu, E. (2020). Determinants of Profitability: A Study on Flour Manufacturing Companies in Hosanna Town. *Academic Journal of Accounting and Economic Researches*, 9 (2), 46-63.

index of a firm's performance. Profit is very important; more profit reflects more effective management of resources and low profits can slow the pace at which a firm progresses and certain obligations or targets may not be met. For any firm to continue in a business, it should be able to generate enough revenue to cover its operating cost and make enough profit as compensation to the providers of capital. Every firm is most concerned with its profitability.

According to Malik (2011), Profitability is one of the most important objectives of financial management since one goal of financial management is to maximize the owners' wealth; and profitability is very important determinant of performance. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Hence, the ultimate goal of a business entity is to earn profit in order to make sure the sustainability of the business in prevailing market conditions. Myers (2001), defined the profitability as the ability of a business, whereas it interprets the term profit in relation to other elements. It is necessary to examine the determinants of profitability to understand how companies finance their operations. A financial benefit is realized when the amount of revenue gained from a business activity exceeds the expenses, costs and taxes needed to sustain the activity. Profitability analysis classifies measures and assesses the performance of the company in terms of the profits it earns either in relation to the shareholders investment or capital employed in the business or in relation to sales, profit, (or loss). Given that most entrepreneurs investing order to make a return, the profit earned by a business can be used to measure the success of that investment. Carcello, Bedard, and Hermanson (2009), defines that profitability is the organizations' ability to generate income and its inability to generate income is a loss.

Profitability determinants, especially in the manufacturing industry, are very essential - as a main strategy for economic growth for any country adopting an export-oriented industrialization policy within an open economic environment. Manufacturing is a source of job as well as the segment from which a significant portion of the nation's wealth is derived. When a country exports more than it imports, the condition is referred as a trade surplus. It generally receives more money than it spends and in return results in greater wealth. One of the biggest contributors to the economy is the manufacturing sector as it has the most important role and a significant impact over the economic development of any country at both local and international level(Isibor et al., 2018).

Since Ethiopia has made significant progress in its industrialization effort in the past decades, it is important to examine what the profitability determinants are in Ethiopian manufacturing sector and see how well the sector is performing compared to its African counterparts. Most African countries' manufacturing sectors are still under "elementary" stage of growth which makes the sector less productive and ineffective. To advance the development of the African economy in terms of share of total output, innovation, productivity and employability, the level of growth has a crucial impact on a nation's economic growth. The uncommon enthusiasm in manufacturing originates from the conviction that the sector is a potential engine of modernization, a maker of skilled jobs, and a generator of positive net inflow of capital. Since the grant of independence to West African countries, incoherence in governments' policies, policy inconsistencies, inadequate mobilization of human and material resources, ethnicity, pseudo religious proclivity and military intervention in politics have had a negative impact on industrialization of their economies. Industrialization which involves the conversion of an agrarian and commercial society to more mechanized, modernized, research and knowledge led system, is considered the most appropriate strategy to adopt(Isibor et al., 2018). External investors. It will also help policy makers to identify areas of support to firm the industrialization of the economy.

Currently, this sub-sector (flour manufacturing) is growing very fast in terms of values and volume of production. It also contributes a significant portion to the gross value of production and marketing. This prediction shows that the sub-sector will exhibit one of the highest growth rates in the manufacturing sector which is mainly dependent on locally produced raw materials such as wheat. This in return implies that sustainability will not be a challenging issue. Besides, there is an opportunity in this sub sector. This include the country's potential to grow wheat; conducive government policy in manufacturing sector, over 4.7 million wheat producers; high demand of bread, pasta and macaroon, etc(AbebaTesfye, 2015).

Currently, there are around 300 flour mills in Ethiopia with a total of 3.7 million tons of milling capacity per year. The flour mills are able to obtain the required wheat from the Ethiopian Grain Trade Enterprise (EGTE) which controls all commercial wheat imports and makes wheat available to flour mills at a government subsidized rate(Chander & Aggarwal, 2008).These wheat imports account for roughly thirty-three percent of the wheat market. The flour mills get the remainder of the wheat supply from the local market. The challenges of Milling Industry in Ethiopia are: limited domestic wheat supply, weak linkage between producers and milling and pasta industries, lack of advanced technological production methods and funding to expand, train, upgrade product diversification capacities, lack of skill upgrading trainings and world class production methodologies through foreign partners, infrastructural problem(shortage of water, irregularity and shortage of electric power), inability of millers to purchase additional grains from foreign markets, unimproved market institutions that are influenced by consumer oriented policies, weak organized wheat value chain alliance, unavailability of current data and information regarding the sector, and limited resource(AbebaTesfye, 2015).

Thus this study attempts to identify some of the major determinants of profitability in the flour manufacturing companies operating in Hadiya zone, Hossana town administration. The motive behind undertaking this study is that despite the presence of some manufacturing firms in the study area, it seems that no formal study appears to have been made that investigates the factors affecting the profitability or efficiency of the manufacturing sector in general, and the flour milling sub-sector in particular, in Hadiya zone. Therefore, the study is believed to shed some light by filling the research gap in the sector; and would help the owners, managers, the government and other stakeholders to evaluate the overall success of the sub-sector.

STATEMENT OF THE PROBLEM

One of the biggest contributors to the economy is the manufacturing sector as it has the most important role and a significant impact over the economic development of any country at both local and international level. Most of the industrialized countries depending on the industrialization and manufacturing development by its production sector adding value to the economy and economic development bring the country in the line of industrialized developed countries as the role of the industrialization cannot be ignored even at micro level as well as macro level. This progress later plays a vital role to bring the country to achieve its long term economic growth and to fight the vicious circle of poverty which is the hurdle to the economic development and works against underdevelopment and contributes to increase national income.

The manufacturing sector has a great potential for promoting economic growth and competitiveness in the country. Ethiopia has embarked on a transformation journey of becoming a low middle-income carbon-neutral economy by 2025. To attain this goal, Ethiopia needs to sustain the high growth episodes that have been observed over the last decade by deepening structural change in its economy. The Second Growth and Transformation Plan (GTP II)

(2015/16-2019/20) envisages an emergence in the form of desirable outcomes of structural transformation in a relatively shorter period of time as in the case of South East Asian countries. This is to be achieved by shifting economic activities from low productivity to high productivity sectors, especially in the manufacturing sector. The quest for industrialization is the most viable option for ensuring structural transformation (Addis, Tegegn, & Mengistu, 2019).

To understand well the profitability of this important sector of the economy, an understanding of how different factors affect the firm profitability is important. A number of studies have been carried out to determine how leverage, firm size, liquidity, sales growth rate, fixed asset turnover and operating expense influence profitability of manufacturing firms those have raised conflicting findings. To the best knowledge of the researcher, there are limited studies which examine determinants of profitability in manufacturing sector. For instance, in the study conducted by Babalola (2013), in Nigeria, firm size, as measured both by total asset and total sales, has a positive significant impact on the profitability of manufacturing companies in Nigeria.

On the other hand, Niresh and Thirunavukkarasu (2014), explored the effects of firm size on profitability of quoted manufacturing firms in Sri Lanka. Their finding revealed that there is no statistically significant relationship between firm size and profitability of the listed firms; Ashraf and Rasool (2013), empirically investigated the determinants of leverage of automobile firms listed on the Karachi stock exchange. The result shows that leverage is negatively correlated with profitability but not found statistically significant. Gill, Biger, and Mathur (2011), examined the effect of capital structure on profitability of the American service and manufacturing firms. Accordingly, the study found that capital structure has a statistically significant positive effect on firm's profitability in manufacturing sector; while it has insignificant effect in the service industry.

When we come to the Ethiopian case, a handful of empirical studies have been directed to explore the determinants of commercial bank profitability or efficiency. As an example, in Abate and Mesfin (2019), attempted to examine the factors affecting profitability of banking sector in Ethiopia, and discovered that asset quality, capital strength, income diversification, and operational efficiency all have statistically significant effect on banks profitability. Similarly, a study by Obamuyi (2013), using such variables as asset quality, size, capital adequacy, deposit, income diversification, liquidity, and managerial efficiency, reported that bank size and managerial efficiency have statistically significant effect on the profitability of private commercial banks in Ethiopia.

These findings show that the influence of factors varies markedly from country to country, from one industry to another and from one-time period to another within the same economy and these coupled with the shortage of well documented empirical evidence on the determinants of profitability of flour manufacturing firms in Hadiya Zone triggers the researcher to study the problem. Based on these grounds, the researcher attempts to give some insight contribution and pinpoint new findings of this area of research in Ethiopian companies so as to fill the knowledge gaps in empirical evidence and extended the debate on the factors influencing profitability of flour manufacturing firms currently operating in Hadiya zone, Hosanna town. Hence, the major aim of this study is to identify the most important variables/factors that significantly explain the profitability of manufacturing sector with special emphasis on firms engaged in flour milling in Hosanna Town administration.

OBJECTIVES OF THE STUDY

The general objective of this study is to assess the determinants of flour manufacturing companies' profitability in Hosanna town.

Specific Objectives

The specific objectives of this study include:

- To determine the influence of firm size on profitability of the flour manufacturing firms operating in Hosanna town
- To examine the effect of Leverage on profitability of the flour manufacturing firms operating in Hosanna town
- To analyze the effect of Liquidity on profitability of the flour manufacturing firms operating in Hosanna town
- To scrutinize the effect of sales growth on profitability of the flour manufacturing firms operating in Hosanna town
- To investigate the effect of fixed asset turn over on profitability of the flour manufacturing firms operating in Hosanna town
- To study the effect of operating expense on profitability of the flour manufacturing firms operating in Hosanna town

Research questions

Therefore, this study seeks to answer the following research questions:

- What is the effect of firm size on profitability of the flour manufacturing companies?
- What is the effect of leverage on profitability of the flour manufacturing companies?
- What is the impact of liquidity on financial profitability of the flour manufacturing companies?
- What is the impact of sales growth on profitability of the flour manufacturing companies?
- What is the effect of fixed asset turn over and operating expense on profitability of the flour manufacturing companies?

Scope and Limitation of the study

The scope of the research was limited to the relationship of selected variables that determine the profitability of flour manufacturing companies in Southern Nation Nationalities and Peoples Region (SNNPR) specifically in Hosanna town. In the sample flour manufacturing companies that have complete financial statement for the study period were included purposively. The length of time considered during the selection of companies in this study was 7 years working experience, from 2012-2018. The data for this study was gathered from the audited annual financial reports of the six (6) flour manufacturing companies. Some of the constraints that the researcher was face during the study are time, finance and source of information, lack of enough empirical studies in the related subject area and sample inadequacy selection was other constraint because the study considered only few flour manufacturing firms at Hosanna town.

METHODOLOGY

The study was conducted in southern Nation Nationalities and People's Region (SNNPR) specifically in Hosanna Town, which is the capital town of the Hadiya Zone. Hosanna is among the town of the region that have abundant resource base, which can create a favorable environment for industrial development especially for agro industry (example, cereals for flour manufacturing company). According to the data from Town trade and investment office there are a total of 6 manufacturing companies in Hosanna Town which found at full operation ,licensing registration and implementation level, of which all companies established as a four sector.

For the purpose of this study, secondary data were used from internal and external sources. The internal sources are the balance sheet and income statement of six flour manufacturing

companies, whereas, the external sources are the annual reports of Minister of Finance and Economic Development (MoFED). Panel data were employed to examine the effect of firm specific and macroeconomic factors on financial performance of flour companies. Panel data is favored over pure time-series or cross-section data because it can control for individual heterogeneity and there is a less degree of multi-collinearity between variables. Only audited financial reports were included in this study.

Purposive sampling technique was employed to select targeted population and companies were selected on the basis of whether they have audited financial statements. In line with this criterion, 6 flour manufacturing companies namely: Sifona flour factory, Abalewi flour factory, Adinew flour factory, Licha flour factory, Mesgan flour factory, Birhanu Ahimed flour factory were selected because, the aim of the consideration was to provide the reliable and most up-to-date result.

The main purpose of this study is to scrutinize the determinants of financial performance in four manufacturing companies using annual balanced panel data in the period of 2012-2018. Thus, financial performance of the four producing companies was measured by profitability ratios: ROA (return on asset) and ROE (Return on equity). Regarding the determinants of financial performance of four producing companies, multiple linear regression model was used. Thus, on the basis of the general regression model two multiple regression models were specified and estimated to examine the relationship between the two dependent variables-ROA and ROE-each with six independent variables. The general form of the regression model (Mathematical equation) can be stated as:

$$Y_{it} = \beta_0 + \beta X_{it} + U_{it}$$

Where: Y_{it} - is dependent variable, β_0 - is the intercept (constant variable), X_{it} - is independent variable, U_{it} - are the error terms, i - The number of firms and, t - The number of time period

Model

$$ROA = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 FAT_{it} + \beta_5 OPE_{it} + \beta_6 SGR_{it} + U_{it}$$

$$ROE = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 FAT_{it} + \beta_5 OPE_{it} + \beta_6 SGR_{it} + U_{it}$$

ROA - Return on Asset (profitability of the firm)

ROE - Return on Equity (profitability of the firm)

β_0 - Constant coefficient

$\beta_1 - \beta_6$ = Regression coefficients for measuring independent variables

SIZE = Firm size

LEV = Firm Leverage

LIQ = Liquidity

FAT = Fixed asset turnover

OPE = operating expense Ratio

SGR = Sales growth rate

U_{it} = Error component showing unobserved factor

RESULTS

1. Introduction

This chapter discusses the determinants of profitability of flour manufacturing company in Hosanna town. The chapter presents the diagnostics test results of multi-collinearity, Heteroscedasticity, autocorrelation, and normality. The chapter also presents results of the regression analysis and discusses the study results. Finally, this chapter gives a summary of the main concerns.

2. Descriptive Statistics

This section presents the descriptive statistics of dependent and explanatory variables used in this study. The dependent variables used in this study are ROA and ROE while explanatory variables are, SIZE, LEV, LIQ, FAT, OPE, and SGR.

2.1. Summary Statistics

Table 1 shows the summary descriptive results for all the variables used in the study such as mean, maximum, minimum, standard deviation and number of observation.

Table 1. Summary of descriptive statistics of study variables over the period of 2012-2018

variables	ROA	ROE	FIRMSIZE	LEV	LIQ	FAT	OPE	SGR
Mean	0.0518	0.0611	6.9936	0.1116	9.0409	5.3609	0.1216	0.0518
Maximum	0.1444	0.1524	7.7650	0.6470	15.674	12.436	0.2683	2.9000
Minimum	0.0162	0.0174	6.6251	0.0096	3.5921	1.9645	0.0255	-0.3229
Std. Dev.	0.0249	0.0279	0.2374	0.1789	3.1464	3.4328	0.0616	0.5213
Observations	42	42	42	42	42	42	42	42

As stated in table 4, the average ROA and ROE for flour companies were 5.2% and 6.1% respectively indicating that flour manufacturing companies have an average positive profit over the last seven years. From the total of 42 observations, the mean of ROA equals 5.2% with a minimum of 1.6% and a maximum of 14.4%. That means, the most profitable flour manufacturing companies earned 0.1444cents(14.44%) of net income from each birr asset investment and the minimum profit earned by one of the sample flour manufacturing companies was 0.16 cents on each birr asset investment. Again, from the total of 42 observations, the mean of ROE equals 6.1% with a minimum of 1.7% and a maximum of 15%. That means, the most profitable sample companies earned 0.15 cents (15%) of net income from one birr equity investment. On the other hand, the minimum profit earned by company is 0.017 cents (1.7%) for each one birr investment on equity. The standard deviation statistics for ROA and ROE was 2.5% and 2.8% respectively meaning that the average ROA and ROE of 5.2% and 6.1% deviates up or down by 2.5% and 2.8% respectively.

Firm size was measured by natural logarithm of total asset and has a mean of 6.99, with a standard deviation of 0.24, indicating a minimal deviation from the expected mean. The result also shows a minimum value of 6.63and a maximum value of 7.77. This implies that for firms to have minimum profitability they must have an asset size of 6.63and for maximum profitability, the firms should have an asset size valued at 7.77.

Leverage has a mean of 0.112, which indicates that firms' used minimal level of debt to finance the business than the firm asset. It further shows a standard deviation of 0.179 which indicates a minimal deviation from the mean. Similarly, leverage has minimum value of 0.0096 and a maximum value of 0.647. This explains that some firms use high level of debt (highly levered) to operate and run their activities and some others use very minimal level of debt and or consider low debt in financing their activities.

Furthermore, Liquidity from the table above has an average score of 9.041; which explains that the flour manufacturing companies are able to meet their short term obligations (current liabilities) up to 9.041times. The statistics further shows a standard deviation of 3.146which was observed to be high. The result also shows that liquidity ratio has minimum value and maximum value of 3.5921and 15.674respectively.

The amount of mean and standard deviation of fixed asset turnover of flour manufacturing companies has the value of 5.361and 3.433respectively. This implies that the sample period of flour manufacturing companies generate revenue from fixed asset 5.361while the variation

across the sampled flour manufacturing companies was found high. The result also shows that fixed asset turnover has minimum value and maximum value of 1.965 and 12.436 respectively.

Operating expenses has a mean value of 0.122, which implies that the flour manufacturing companies have an average profitability with a standard deviation of 0.062, indicating a low deviation from the expected mean. The minimum and maximum values are 0.0255 and 0.2683 respectively. This implies that for sample firms to achieve minimum and maximum profitability, their operating expenses should not exceed 0.026 and 0.268 respectively.

Finally, Sales growth rate has a mean of 0.0518, with a standard deviation of 0.5213, indicating a moderate deviation from the expected mean. The result also shows a minimum value of -0.3229 and a maximum value of 2.9000. This means that for firms to have minimum profitability they must have Sales growth rate of -0.3229 and for maximum profitability, the firms should have a Sales growth rate valued at 2.9000.

2.2. Correlation Matrix

This section of the study presents the results and discussions of the spearman rank correlation analysis. To identify the relationship between profitability of flour manufacturing companies and Firm Size of companies, Leverage, Liquidity, Fixed asset turnover, Operating expense and Sales growth rate, and spearman rank correlation coefficients were used. The correlation coefficients show the extent and direction of the linear relationship between profitability of flour manufacturing companies and Firm Size of companies, Leverage, Liquidity, Fixed asset turnover, Operating expense and Sales growth rate. According to (Wajahat Ali, 2010:35), before the start of regression analysis it is important to check the correlation test between dependent variable and independent variables. In this study the researcher used spearman rank correlation coefficient matrix generated through the Eview10 software which shows the cross-relationship between all of the variables. The correlation coefficients were tested in order to determine the strength of the relationship between independent and dependent variables. The correlation coefficients were also checked for the presence of high collinearity among repressors. Since the correlation analysis shows only the degree of association, it is followed by multiple regression analysis. The spearman rank correlation coefficient matrix for all variables has been presented below in table 4.2.2. Table 4.2.2 presents the results of the Correlation Analysis which was done to examine any serial Correlations among the Independent Variables when entered into the model for regression analysis, would lead to spurious results.

Table 2. Correlation Matrix (With Dependent Variable)

	ROA	ROE	SIZE	LEV	LIQ	FAT	OPE	SGR
ROA	1.0000							
ROE	0.8079	1.0000						
SIZE	0.3888	0.2373	1.0000					
LEV	-0.1280	0.0916	-0.1383	1.0000				
LIQ	0.2844	0.2167	0.2089	-0.2930	1.00000			
FAT	0.0502	0.3628	-0.3789	0.0381	-0.0220	1.00000		
OPE	-0.2719	-0.1887	-0.2201	-0.0994	-0.0938	0.3356	1.000000	
SGR	0.2925	0.5259	0.1686	0.2833	0.0653	0.3654	-0.0629	1.000000

Source: computed from annual financial reports of sample flour factory (2018)

Correlation test shows that return on assets (ROA) has positive correlation with firm size of flour companies with the value of (0.3888), liquidity with the value of (0.2844), fixed asset turnover with the value of (0.0502), and sales growth rate with the value of (0.2925). And also, Leverage ratio with the value of (-0.1280) and operating expense with the value of (-0.2719) that has negative correlation with ROA.

Correlation of return on equity (ROE) has strong and positive correlation with sales growth rate with the value of (0.5259), fixed asset turnover of flour companies with the value of (0.3628), liquidity with the value of (0.2167), firm size with the value of (0.2373) and leverage with the value of (0.0916), operating expense with the value of -0.1887) that has negative correlation between ROE.

3. Econometric Analysis

The researcher conducted diagnostic tests to guard against the possibility of obtaining and interpreting spurious regression results. The results of the tests have been presented in the following sections.

3.1. The average value of the errors is zero

If a constant term is included in the regression equation, this assumption will never be violated. So that in the model of this study a constant term was included. As a result, this assumption was not violated.

3.2. Multi-collinearity Test

The result of the test for existence multi-collinearity between independent variable has been presented in the correlation analysis using only independent variables.

Table 3. Correlation Summary of Regression Result Matrix (Only Independent Variables)
SPEARMAN RANK CORRELATION

	FIRMSIZE	LEV	LIQ	FAT	OPE	SGR
FIRMSIZE	1.0000					
LEV	-0.1383	1.0000				
LIQ	0.2089	-0.2930	1.0000			
FAT	-0.3789	0.0381	-0.0220	1.0000		
OPE	-0.2201	-0.0994	-0.0938	0.3356	1.0000	
SGR	0.1686	0.2833	0.0653	0.3654	-0.0629	1.000000

Source: computed from annual financial reports of sample flour factory (2018)

As noted by (Gujarati, 2004), a serious problem for multi-collinearity occurs if the correlation is about 0.8 or larger and if pair-wise or zero-order correlation coefficient between two regressors is out of the recommended range of multi-collinearity which is 0.8 or 0.8. In the above correlation matrix, there is no pair-wise relation that exceeds 0.8. And this suggests not to reject the null hypothesis (H0) which states that there is no perfect pair-wise relation among regressors.

Therefore, it can be concluded that there is no problem of multi-collinearity in this study for the results showed that the problem of multi-collinearity did not exist between variables in the model. Hence all the variables were retained for use in the estimations.

3.3. Heteroscedasticity Test

It has been assumed that the variance of the errors is constant. This is known as the assumption of homoscedasticity. If the errors do not have a constant variance, they are said to be Heteroscedasticity. Homoscedasticity states that the variance of the error term is constant in regression results (Gujarati, 2009) $E[\epsilon/X] = 0$. Heteroskedasticity is to be present in a model if the variances of the error-term of the different observation are not the same (Gujarati, 2009). The Whites' test was used to check for the presence of heteroscedasticity in the residuals.

Table 4. A-Heteroskedasticity Test: White (Summary) Model 1(ROA)

F-statistic	1.214741	Prob. F(27,14)	0.3600
Obs*R-squared	29.43536	Prob. Chi-Square(27)	0.3401
Scaled explained SS	17.53564	Prob. Chi-Square(27)	0.9171

Source: computed from annual financial reports of sample flour factory (2018)

Table 5. B-Heteroskedasticity Test: White (Summary) Model 2(ROE)

F-statistic	0.981671	Prob. F(27,14)	0.5354
Obs*R-squared	27.48331	Prob. Chi-Square(27)	0.4380
Scaled explained SS	18.77551	Prob. Chi-Square(27)	0.8780

Source: computed from annual financial reports of sample flour factory (2018)

As shown in Table 5, both F-statistic and chi-square version of test give the same conclusion that there is no evidence for the presence of heteroscedasticity since the pvalues in all of the cases were above 0.05. The third version of the test statistics “Scaled explained SS”, which is based on a normalized version of the explained sum of squares from the auxiliary regression also give the same conclusion.

Generally, in the regression models used in this study it was proved that the test statistics is not significant and the variance of the error term is constant or homoscedastic. Based on this evidence, it is possible to accept the null hypothesis of Homoscedasticity. The linear model is also correctly specified.

3.4. Normality Test

The examination of the normal distribution of the data of the study is one of the fundamental requirements for linear regression analysis between the study variables. Normality tests are used to determine whether a data set is well-modeled by a normal distribution or not; or to compute how likely an underlying random variable is to be normally distributed (Gujarati, 2009). This assumption requires the disturbances to be normally distributed. The Jarque-Bera probability statistics is expected not to be significant (Brook, 2008). Therefore, the normality test for this study as stated in figure 4.3.4 (model one and model two) the kurtosis is close to 3, and the Jarque-Bera statistic had a p-value of 0.1436 and 0.1509. Based on the results discussed below, the p-values is insignificant for both models and the researcher failed to reject the null hypothesis which says the residual value is normally distributed. Therefore, there is no normality problem on the data used for this study.

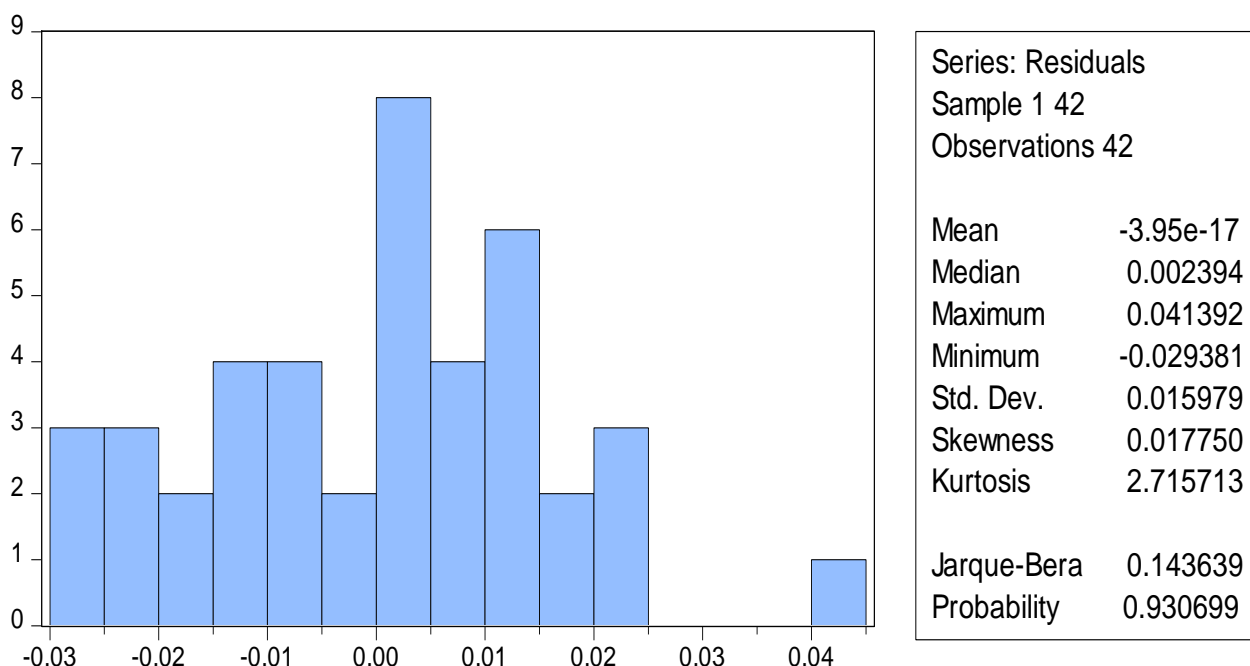


Figure 1. AROA model normality test

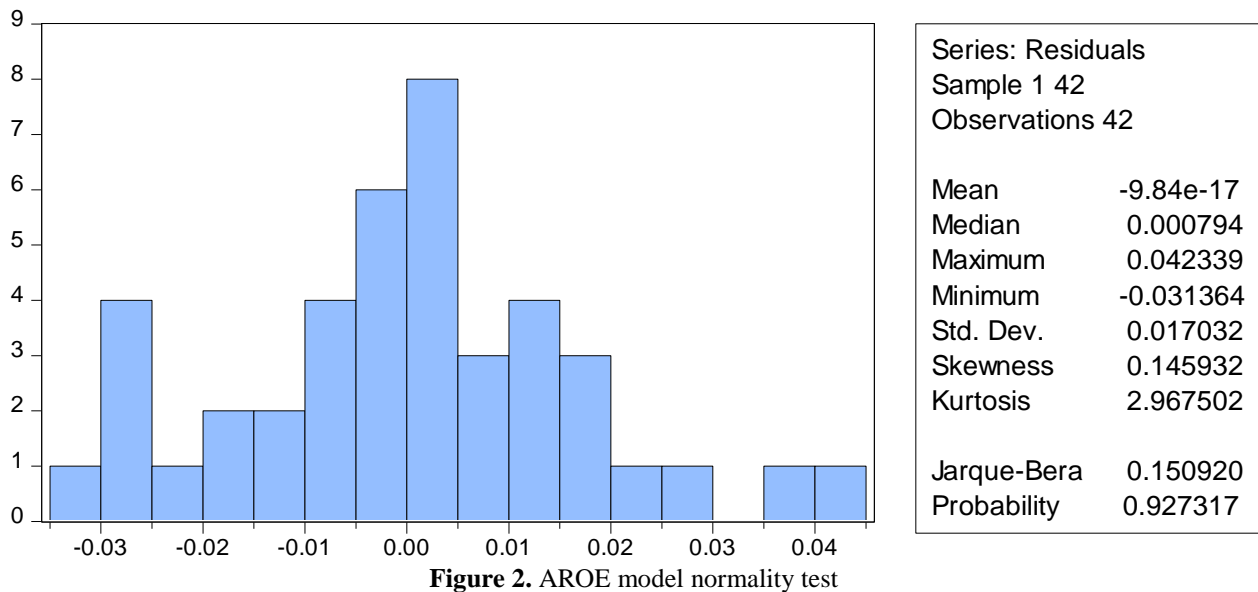


Figure 2. AROE model normality test

3.5. Autocorrelation Test

According to Rahmawati and Hosen (2012), the objective autocorrelation test is to test the linear regression model there is a correlation between the errors in period t with bullies' error in period t-1 (previous period). Durbin-Watson (DW) is use to test the independent variables of errors (autocorrelation) for a level of significance of 0.05.If the errors are correlated with one another, it would be stated that they are 'serially correlated'. A test of this assumption is therefore conducted. The test for Durbin-Watson which is shown below regression output of the models. As per this test the values of Durbin--Watson for the model 1 and model 2 are 2.002612 and 2.063087which are above two. So there is no problem of autocorrelation.

Table 6. A-Autocorrelation Test Model one (ROA)

R-squared	0.809238	Mean dependent var.	0.051802
Adjusted R-squared	0.739292	S.D. dependent var.	0.024947
S.E. of regression	0.012738	Akaike info criterion	-5.653488
Sum squared reside	0.004868	Schwarz criterion	-5.157011
Log likelihood	130.7232	Hannan-Quinn criter.	-5.471509
F-statistic	11.56948	Durbin-Watson stat	2.002612
Prob. (F-statistic)	0.000001		

Source: computed from annual financial reports of sample flour factory (2018)

Table 7. B-Autocorrelation Test Model two (ROE)

R-squared	0.854554	Mean dependent var.	0.061060
Adjusted R-squared	0.801224	S.D. dependent var.	0.027989
S.E. of regression	0.012479	Akaike info criterion	-5.694638
Sum squared reside	0.004672	Schwarz criterion	-5.198161
Log likelihood	131.5874	Hannan-Quinn criter.	-5.512660
F-statistic	16.02381	Durbin-Watson stat	2.063087
Prob. (F-statistic)	0.000000		

Source: computed from annual financial reports of sample flour factory (2018)

4. Fixed effect Versus Random effect

It is also necessary to determine whether the fixed effect or random effect approach is appropriate. A common practice in corporate governance research is to make the choice between both approaches by running a Hausman test. To conduct a Hausman test, the number of cross section should be greater than the number of coefficients to be estimated. But, in this study, the number ofcross sections arenot greater than the number of coefficients. Consequently, it is not

possible to conduct a Hausman test. Therefore, fixed effects test was conducted to determine whether the fixed effect is appropriate for the models. As a result, the time-fixed effect approach was used. In this case the cross section fixed is appropriate whereas cross section fixed approach was applied. Simple pooled multiple regression techniques were also used where fixed or random effect test is not allowed to test heteroscedasticity. (SOURCE)

All the above tests of basic classical linear regression model assumptions for OLS estimation proved that the results obtained from the regression model in this study are consistent, free from bias and efficient since the assumption holds and the next step is analyzing and discussing the outputs of the regressions.

5. Finding and Regression Result

The results of the regression model that have been estimated to examine: the impact of firm size, leverage, liquidity, fixed asset turnover, operating expense and sales growth rate on flour manufacturing companies profitability shown below on table 4.6.

Table 8. A and B Summary of Regression Result

Dependent Variable: ROA				
Method: Panel Least Squares				
Date: 08/20/19 Time: 09:43				
Sample: 2012 2018				
Periods included: 7				
Cross-sections included: 6				
Total panel (balanced) observations: 42				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
SIZE	0.042267	0.012066	3.503001	0.0015
LEV	-0.015341	0.030513	-0.502769	0.6188
LIQ	0.004849	0.001239	3.914944	0.0005
FAT	0.001023	0.001490	0.686549	0.4976
OPE	-0.198530	0.043375	-4.577053	0.0001
SGR	0.016799	0.004390	3.826671	0.0006
C	-0.272245	0.080716	-3.372896	0.0021
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.809238	Mean dependent var.	0.051802	
Adjusted R-squared	0.739292	S.D. dependent var.	0.024947	
S.E. of regression	0.012738	Akaike info criterion	-5.653488	
Sum squared resid	0.004868	Schwarz criterion	-5.157011	
Log likelihood	130.7232	Hannan-Quinn criter.	-5.471509	
F-statistic	11.56948	Durbin-Watson stat	2.002612	
Prob. (F-statistic)	0.000000			

Source: Eviews regression results based on the data obtained from sample flour manufacturing companies

Regression model 1

$$ROA = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 FAT_{it} + \beta_5 OPE_{it} + \beta_6 SGR_{it} + U_{it}$$

$$ROA = -0.272245 + 0.042267 SIZE_{it} - 0.015341 LEV_{it} + 0.004849 LIQ_{it} + 0.001023 FAT_{it} - 0.198530 OPE_{it} + 0.016799 SGR_{it} + U_{it}$$

Table 9. Results of Regression model 1

Dependent Variable: ROE	
Method: Panel Least Squares	
Date: 08/20/19 Time: 09:45	
Sample: 2012 2018	
Periods included: 7	
Cross-sections included: 6	
Total panel (balanced) observations: 42	

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SIZE	0.047188	0.011820	3.992069	0.0004
LEV	-0.017654	0.029891	-0.590613	0.5592
LIQ	0.004793	0.001213	3.950019	0.0004
FAT	0.000672	0.001460	0.460288	0.6486
OPE	-0.213055	0.042492	-5.014040	0.0000
SGR	0.016597	0.004300	3.859424	0.0006
C	-0.292923	0.079072	-3.704519	0.0009
Cross-section fixed (dummy variables)				
R-squared	0.854554	Mean dependent var		0.061060
Adjusted R-squared	0.801224	S.D. dependent var		0.027989
S.E. of regression	0.012479	Akaike info criterion		-5.694638
Sum squared resid	0.004672	Schwarz criterion		-5.198161
Log likelihood	131.5874	Hannan-Quinn criter.		-5.512660
F-statistic	16.02381	Durbin-Watson stat		2.063087
Prob(F-statistic)	0.000000			

Source: Eviews regression results based on the data obtained from sample flour manufacturing companies

Regression model 2

$$ROE = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 FAT_{it} + \beta_5 OPE_{it} + \beta_6 SGR_{it} + U_{it}$$

$$ROE = -0.292923 + 0.047188 SIZE_{it} - 0.017654 LEV_{it} + 0.004793 LIQ_{it} + 0.000672 FAT_{it} - 0.213055 OPE_{it} + 0.016597 SGR_{it} + U_{it}$$

As it is presented on the above table, Regression results on ROA and ROE were 74% and 80% (Adjusted R²) respectively where significant is at 5% levels ($P < 0.05$). This is meant 74 percent of the variation in return on asset was explained by the independent variables used in this study. Only 26 percent of variation in return on asset is due to other factors that are not included in this study. In the second model, 80 percent of the variation in return on equity was explained by the independent variables used in this study. Only 20 percent of variation in return on equity is due to other factors that are not included in this study. The R² results indicate that the overall goodness-of-fit of the models used in this study was found significant.

According to the regression result from table 4.6 (**model 1**), firm size, liquidity, operating expense and sales growth rate have highly significant effects on profitability of flour manufacturing companies in Hosanna Town whereas leverage and fixed asset turnover have no significant impact on flour manufacturing companies' profitability as measured by ROA. In the regression result from table 4.6 (model 2), firm size, liquidity, operating expense and sales growth rate have highly significant effects on profitability of flour manufacturing companies in Hosanna Town whereas leverage and fixed asset turnover have no significant impact on flour manufacturing companies profitability as measured by ROE. The above profitability determinants of flour manufacturing companies are individually discussed in the next paragraphs referring regression result of table 4.6 model 1 and model 2.

Firm Size (SIZE)

Size of companies: The coefficient of Size of flour manufacturing companies (firm size) is positive in both ROA and ROE with (0.042267) and (0.047188) respectively. Statistically, it is highly significant determinant of profitability for flour manufacturing companies in Hossana with the probability of (0.0015) and (0.0004) at 5 % significance level. This finding agrees with the studies by Babalola (2013), in Nigeria. Their studies found a positive and significant relationship between firm size and return on asset. However, the study contradicts with that of Woldemariam (2017), who documented a negative correlation between firm size and return on asset and considers firm size as the strongest contributor that explains ROA in their model. Therefore, this study accept the first hypothesis which states that firm size has positive

significant effect on profitability of flour manufacturing companies . This reveals that performance of large size flour manufacturing companies is better than small size companies. large companies are able to benefit from the superior management and the superior capabilities in product development, marketing, commercialization, financial scope, specialization, stronger bargaining power, stronger competitive power, bigger market share, and a more opportunity to work in the fields which require high capital rates since they have much more resources. In this study, the positive coefficient of firm size (0.042267) and (0.047188) of ROA and ROE imply that increase in firm size by one percent results increase in flour companies' ROA and ROE by 4.23 percent and 4.72 percent respectively. It indicates that the higher firm sizes, the higher the profitability of flour factory in the study area. Therefore, the study fails to reject the 1st hypothesis saying firm size have positive and statistically significant impact on profitability.

Leverage

The coefficient of leverage of flour manufacturing companies is negative in both ROA and ROE with (-0.015341) and (-0.017654). Statistically, it is insignificant determinant of profitability for flour manufacturing companies in Hossana town with the probability of (0.6188) and (0.5592) at 5 % significance level. This indicates a low degree of influence of leverage on the profitability of flour manufacturing companies. This is consistent with the finding of Alalade, Oguntodu, and Adelakun (2015), and Ashraf and Rasool (2013), Amarjit and Neil (2011), as their studies found a negative but insignificant relationship between leverage and return on asset. But it has a contradicting result with Woldemariam (2017), Tadesse and Kassa (2017), in their studies found a negative and significant relationship between leverage and return on asset and return on equity. Besides, this finding contradicts with Amarjit and Neil (2011), findings as their studies found a positive and significant relationship between leverage with return on asset and return on equity. Harrington (2005), stated that the relationship between leverage and profitability has been studied extensively to support the theories of capital structure and argued also that firms with lower leverage will generally report higher ROA and ROE. Therefore, the study rejected the 2nd hypothesis saying leverage have negative significant impact on profitability.

Liquidity (LIQ)

Another important variable that positively and significantly affected firm's profitability at less than 5% significance level is liquidity (LIQ). The coefficient of liquidity of flour manufacturing companies (LIQ) is positive in both ROA and ROE with (0.004849) and (0.004793). It is statistically significant determinant of profitability for flour manufacturing companies in Hossana with the probability of (0.0005) and (0.0004) at 5 % significance level. This indicates a high degree of influence of liquidity on the profitability of flour manufacturing companies. The positive coefficient of liquidity in both ROA and ROE implies increase in LIQ by one ETB results in increase in flour companies' ROA and ROE by 0.05cents and 0.04cents respectively. This finding agrees with the studies by Sivathaasan, Tharanika, Sinthuja, and Hanitha (2013). In their investigation, they found significant and positive relationship between profitability and liquidity. On the other hand, the studies done by Woldemariam (2017), Kaddumi and Ramadan (2012), founded that liquidity has negative and statistically insignificant relationship with profitability. But Liquidity for flour manufacturing companies has an impact on the profitability of flour manufacturing because a low liquidity level may lead to increasing financial costs and results in the incapacity to pay its obligations. Liquidity is interpreted as an indicator of the degree of independence of the company against creditors and its ability to face crises and unexpected difficulties. Thus it is an important task for the financial manager to achieve the appropriate balance between the adequate liquidity and a reasonable return for the company. The regression results also show that liquidity has positive significant impact on

profitability of flour manufacturing companies. . It indicates that the higher liquidity the higher the profitability of flour factory in the study area. Therefore, the study fails to reject the 3rd hypothesis which says that liquidity has positive and statistically significant impact on profitability. It indicates that the higher liquidity the higher the profitability of flour factory in the study area.

Fixed Asset Turnover (FAT)

The coefficient of fixed asset turnover of flour manufacturing companies is positive in both ROA and ROE with (0.001023) and (0.000672) but it is statistically insignificant determinant of profitability for flour manufacturing companies in Hossana with the probability of (0.4976) and (0.6486) which indicate a low degree of influence of FAT on the profitability of flour manufacturing companies. This finding agrees with studies by (Okwo, Okelue, & Nweze, 2012). Their investigation found insignificant and positive relationship between profitability and fixed asset turnover. On the other hand, studies done by Khalid (2012), Yameen and Pervez (2016), founded that fixed asset turnover has positive and statistically significant relationship with profitability. Therefore, this study rejects the 4th hypothesis saying F AThas positive and statistically significant impact on profitability because the study found insignificant result.

Operating expenses (OPE)

Operating expense is another important variable which has negative impact on both ROA and ROE with (-0.198530) and (-0.213055); and significant for ROA and ROE with the probability of (0.0001) and (0.0000). As the regression result indicates, the sample flour companies are affected by poor cost management system that arises from high level of operating, administrative and personnel expenses during the study period. It indicates that the higher the operating expense the lower the profitability of flour factory in the study area.

Sales Growth Rate (SGR)

Another important variable that positively and significantly affected firm's profitability at less than 5% significance level is sales growth rate (SGR). The coefficient of flour manufacturing companies' SGR is positive in both ROA and ROE with (0.016799) and (0.016597).It is statistically significant determinant of profitability for flour manufacturing companies in Hosanna with the probability of (0.0006) and (0.0006) at five percent significance level, which indicates a high degree of influence of SGR on the profitability of flour manufacturing companies.

CONCLUSION

Generally, a strong and healthy financial system is a prerequisite for sustainable economic growth of a given country. In order to survive negative shocks and maintain a good financial stability, it is vital to identify the determinants that mostly influence the overall performance and profitability of flour manufacturing companies. This paper empirically examined the relationship between the factors determining profitability of flour manufacturing companies in the study area for the period of 2012-2018 using the multiple regression analysis. Thus, panel data for six sampled flour manufacturing firms for seven years was used for the analysis purpose. For this purpose, firm size, leverage, liquidity, fixed asset turnover, operating expense and sales growth rate were selected as explanatory variables while ROA and ROE are taken as dependent variable. Before making regression analysis, diagnostic tests were made for the multiple linear regression models by using Eviews 10. Regression results on ROA and ROE were 74% and 80% (Adjusted R2) respectively where significant is at 5% levels ($P < 0.05$). The study also used an appropriate econometric methodology for the estimation of variables coefficient under fixed effect regression models and pooled regression.

Determinants of Profitability: A Study on Flour Manufacturing ...

Based on correlation analysis, firm size, liquidity, fixed asset turnover and sales growth rate were positively correlated with profitability (ROA & ROE). These correlations clearly shows that, as the firm size, liquidity, fixed asset turnover and sales growth rate, profitability also moves on the same direction. On the other hand, leverage and operating expense were negatively correlated with profitability (ROA & ROE). This clearly shows that, as the leverage and operating expense, profitability moves in opposite direction.

Based on the empirical findings, operating expense negatively and significantly affect profitability measured by ROA and ROE. While leverage insignificant impact on ROA and ROE. Moreover,

Firm size, liquidity and sales growth rate affect both ROA and ROE positively and significantly while fixed asset turnover has insignificant effect on both ROA and ROE. The following sections discussed about the final concluding remarks of the study.

Firm size has a positive and significant effect on profitability of flour manufacturing companies in Hosanna as measured by both ROA and ROE. The positive relationship between size and profitability implies that performance of large size flour manufacturing companies is better than small size flour manufacturing companies. This situation provides them an opportunity to work in more profitable fields with little competition. Another major advantage that large-scale businesses have is that of economy of scale. Vendors and suppliers are much more likely to provide discounts to companies that purchase in large quantities. By taking advantage of the economic scale, large companies are able to reduce the cost of doing business and maximizing their profit margins. Furthermore, large firms are capable of decreasing transaction costs of issuing long-term debt at a favorable low rate of interest.

The effect of leverage on both ROA and ROE is insignificant with negatively related as measured by ROA and ROE which implies leverage is not considered as that much powerful explanatory variable to determine the profitability of flour manufacturing companies in Hossana town .

In this study, Liquidity (LIQ) has positively and significantly affected firm's financial profitability in both ROA and ROE. This shows that increase in Liquidity increases the profitability of flour manufacturing companies in Hosanna town. It implied that flour manufacturing companies with higher capacity to pay obligation generate more profit than lower capacity. Low liquidity level may lead to increasing financial costs and result in the inability to pay its obligations.

Fixed asset turnover is not considered as much powerful explanatory variables to define the performance of flour manufacturing companies in Hossana with insignificant positive relation with ROA and ROE.

The negative and significant impact of operating expense on both profitability measures (ROA and ROE) shows that decrease in operating expenses increases the profitability of flour factory in the study area. According to the studies of Sufian and Chong (2008) poor expense management are the main contributors for poor profitability. This implies that the poor operating expense management is one of the main contributors for poor performance of flour companies. It indicates that the higher the operating expense the lower the profitability of flour factory in the study area. This means that, the higher costs of operation negatively affect flour manufacturing firms profitability.

Sales growth rate has a positive and significant effect on profitability of flour manufacturing companies in Hosanna as measured by both ROA and ROE. The coefficient is positive so that there is a positive relationship between Sales Growth rates measured by ROA

and ROE. The higher the Sales Growth Ratio the increasing profitability of flour manufacturing companies.

Recommendations

Based on the findings of this study and the conclusions drawn above, the following recommendations were made:

The results of significant and positive relationship between firm size and profitability in both return on asset and return on equity leads to increase in firms' profitability. The results showed that firm size was a major determinant of profitability. This study therefore suggests that firms' focus should be on increasing their size by boosting turnover and opening up new market for existing and new product. This simply suggests that firms need to expand in size to enhance their profit level. In summary, firms are able to enjoy large profit levels if they can increase in size and sales with a large reduction in production cost and debt ratio.

The study also found positive relationship between liquidity and firms' profitability. Great attention should be paid to liquidity. It indicated that whenever managers of the firm should ensure that their firms have adequate liquidity levels to ensure that the firm can meet any contingencies and to improve their firms' profitability. This implies that low liquidity level may lead to increasing financial costs and result in the incapacity to pay its obligations. Therefore, the researcher recommend that the manager should ensure that their firms have adequate liquidity levels to ensure that the can meet any contingencies and to improve their firms' profitability.

The study found also that operating expense has a negative relationship with firms' profitability. Therefore, based on the result regarding the operating expense, the researcher recommended that firms should strive to reduce their operating expenses and implement efficient strategies that address operating cost. The operating costs of the business should be reduced as much as it can with production quality remaining the same.

The study also found positive relationship between sales growth rate and firms' profitability as measured by ROA and ROE at highly significant level. Therefore, the researcher recommended that the manager should have to consider not only sales growth but also how they utilize firms' asset efficiently to have an impact on firms' profitability. Cost of sale is also an important factor to be considered in enhancing or boosting the profitability of flour manufacturing. It is therefore necessary that the internal components of cost of sale such as material cost, labor cost and factory overhead should be reduced to the barest minimum.

Finally, management of flour manufacturing companies under this study can create value for the shareholders as well as to make the firms profitability by giving more consideration on the above recommendation: their firm size, to ensure that firms have adequate liquidity levels, efficiently use operating expense, efficiency of their asset utilization and the internal components of cost of sale and other internal and external factors.

REFERENCES

- Abate, Tadesse Wubie, & Mesfin, Enyew Alemaw. (2019). Factors affecting profitability of commercial banks in Ethiopia. *International Journal of Research and Analytical Reviews*, 6(1), 881-891.
- AbebaTesfye. (2015). Ethiopian Millers' Association Flour Milling: Pasta & Biscuits July, Bayne Building 6th Floor Opposite Home Depot.
- Addis, Yonnas, Tegegn, Bosena, & Mengistu, Ketema. (2019). Value Chain Analysis of Wheat (*Triticum Aestivum*): The Case of Dembecha District, West Gojjam Zone, Ethiopia. *Ethiopian Journal of Crop Science*, 7(1), 77-91.

Determinants of Profitability: A Study on Flour Manufacturing ...

- Alalade, Yimka SA, Oguntodu, James A, & Adelokun, Victor A. (2015). Firms' Capital Structure and Profitability Performance: A Study of Selected Food Product Companies in Nigeria. *International Journal of Banking and Finance Research*, 1, 64-83.
- Amarjit, G, & Neil, M. (2011). Factors that Influence Financial Leverage of Canadian Firms. *Journal of Applied Finance & Banking*, 1(2), 19-37.
- Ashraf, Tanveer, & Rasool, Safdar. (2013). Determinants of Leverage of Automobile Sector Firms Listed in Karachi Stock Exchange by Testing Packing Order Theory. *Journal of Business Studies Quarterly*, 4(3), 73.
- Babalola, Yisau Abiodun. (2013). The effect of firm size on firms profitability in Nigeria. *Journal of economics and sustainable development*, 4(5), 90-94.
- Carcello, Joseph V, Bedard, Jean C, & Hermanson, Dana R. (2009). Responses of the American Accounting Association's tracking team to the recommendations of the Advisory Committee on the Auditing Profession. *Accounting Horizons*, 23(1), 69-84.
- Chander, Subhash, & Aggarwal, Priyanka. (2008). Determinants of corporate profitability: an empirical study of Indian drugs and pharmaceutical industry. *Paradigm*, 12(2), 51-61.
- Gill, Amarjit, Biger, Nahum, & Mathur, Neil. (2011). The effect of capital structure on profitability: Evidence from the United States. *International Journal of Management*, 28(4), 3.
- Gujarati, Damodar N. (2009). *Basic econometrics*: Tata McGraw-Hill Education.
- Harrington, Christine. (2005). The Effect of Competitive structure on the relationship between leverage and profitability. *Journal of Regulatory Economics*, 19(3), 44-64.
- Isibor, Areghan Akhanolu, Omankhanlen, AE, Okoye, Lawrence U, Achugamonu, Bede U, Adebayo, ME, Afolabi, GT, & Ayodeji, OE. (2018). Impact of Electronic Banking Technology on Customers' satisfaction and Economic Growth in Nigeria. *International Journal of Civil Engineering and Technology*, 9(12), 536-544.
- Kaddumi, Thair A, & Ramadan, Imad Z. (2012). Profitability and working capital management: The Jordanian case. *International Journal of Economics and Finance*, 4(4), 217-226.
- Khalid, AC. (2012). The impact of asset quality on profitability of private banks in India: A case study of JK, ICICI, HDFC & YES banks. *Journal of African Macroeconomic Review*, 2(1), 126-146.
- Malik, Hifza. (2011). Determinants of insurance companies profitability: an analysis of insurance sector of Pakistan. *Academic Research International*, 1(3), 315.
- Myers, Stewart C. (2001). Capital structure. *Journal of Economic perspectives*, 15(2), 81-102.
- Niresh, Aloy, & Thirunavukkarasu, Velnampy. (2014). Firm size and profitability: A study of listed manufacturing firms in Sri Lanka. *International Journal of Business and Management*, 9(4).
- Obamuyi, Tomola Marshal. (2013). Determinants of Banks' Profitability in a Developing Economy: Evidence from Nigeria. *Organizations and markets in emerging economies*, 4(08), 97-111.
- Okwo, Ifeoma Mary, Okelue, Ugwunta David, & Nweze, Austin Uche. (2012). Investment in fixed assets and firm profitability: Evidence from the Nigerian brewery industry. *European Journal of Business and Management*, 4(20), 10-17.
- Rahmawati, Rafika, & Hosen, Muhamad Nadrattuzaman. (2012). Efficiency of Fund Management of Sharia Banking in Indonesia (Based On Parametric Approach). *International Journal of Academic Research in Economics and Management Sciences*, 1(2), 144.
- Sivathaasan, N, Tharanika, R, Sinthuja, M, & Hanitha, V. (2013). Factors determining profitability: A study of selected manufacturing companies listed on Colombo Stock Exchange in Sri Lanka. *European Journal of Business and management*, 5(27), 99-107.
- Tadesse, Meseret, & Kassa, Getahun. (2017). Determinants of Financial Performance of Wheat Flour Producing Companies in Hawassa City, South Ethiopia. *Journal of Poverty, Investment and Development*(31), 7-12.
- Woldemariam, Yodit Yirgu. (2017). *Determinants of Profitability: Evidence from Large Manufacturing Food and Beverage Companies of Addis Ababa*. Addis Ababa University Addis Ababa, Ethiopia.
- Yameen, Mohd, & Pervez, Asif. (2016). Impact of liquidity, solvency and efficiency on profitability of steel authority of India limited. *International Journal of Accounting Research*, 42(3968), 1-10.