

DETERMINANTS OF FIRM'S PROFITABILITY: IN THE CASE OF SELECTED ETHIOPIAN TANNERY COMPANIES

DETERMINANTES DE LA RENTABILIDAD DE LA EMPRESA: EN EL CASO DE EMPRESAS DE CURTIDURÍA ETIOPÍA SELECCIONADAS

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Abstract: Purpose: The general objective of this study is to investigate the determinants of profitability in the case of selected Ethiopian Tannery Companies.

Methodology: The study employed an explanatory research design with a quantitative approach to assess the relationship between profitability and its determinant factors. The study had a population size of 29 Tannery Companies in Ethiopia. To undertake this research paper, the researcher used non-probabilistic sampling specifically the judgmental sampling method was used to select eight (8) sample Tannery Companies. Balanced panel data were analyzed by using descriptive statistics, correlation, and Multiple Linear regression analysis. Ordinary Least square model in the form of multiple regression analysis was applied to analyze the annual data generated from the financial statements of the selected Tannery Companies covering a period from 2008 - 2017 G.C. In this study, ROA was used as the measure of profitability.

Findings: The paper includes tangibility, firm size, liquidity, leverage, growth rate, and inventory turnover as independent factors that determine the profitability of Tannery Companies in Ethiopia. The result from the empirical examination found that only Tangibility, Inventory Turnover, and Firm growth rate have a statistically significant effect on the companies (ROA), whereas Liquidity, Leverage, and Firms size have a statistically insignificant effect on the profitability of Ethiopian Tannery Companies.

Conclusion: Besides, the study suggested the companies that give more attention to the statistically significant variables of the sectors such as firm growth rate, inventory turnover, and tangibility. While the results may not be generalizable to all Ethiopian Tannery Companies found in the country, the findings should provide valuable information to managers for developing their strategies with regard to firm-specific determinants.

Keywords: Profitability, Determinant factors, Tannery Companies, Ethiopia.

Resumen: Propósito: El objetivo general de este estudio es investigar los determinantes de la rentabilidad en el caso de empresas etíopes de curtiduría seleccionadas.

Metodología: El estudio empleó un diseño de investigación explicativo con enfoque cuantitativo para evaluar la relación entre la rentabilidad y sus factores determinantes. El estudio tuvo un tamaño de población de 29 empresas de curtiduría en Etiopía. Para llevar a cabo este trabajo de investigación, el investigador utilizó un muestreo no probabilístico específicamente, se utilizó el método de muestreo de juicio para seleccionar ocho (8) empresas de curtiduría de muestra. Los datos de panel equilibrados se analizaron utilizando estadísticas descriptivas, correlación y análisis de regresión lineal múltiple. Se aplicó el modelo de mínimos cuadrados ordinarios en forma de análisis de regresión múltiple para analizar los datos anuales generados a partir de los estados financieros de las empresas de curtiduría seleccionadas que cubren un período de 2008 - 2017 G.C. En este estudio, se utilizó el ROA como medida de rentabilidad.

Conclusiones: el documento incluye la tangibilidad, el tamaño de la empresa, la liquidez, el apalancamiento, la tasa de crecimiento y la rotación de inventario como factores independientes que determinan la rentabilidad de las empresas de curtiduría en Etiopía. El resultado del examen empírico encontró que solo la tangibilidad, la rotación de inventario y la tasa de crecimiento de la empresa tienen un efecto estadísticamente significativo en las empresas (ROA), mientras que la liquidez, el apalancamiento y el tamaño de las empresas tienen un efecto estadísticamente insignificante en la rentabilidad de las empresas etíopes de curtiduría.

Conclusión: además, el estudio sugirió las empresas que prestan más atención a las variables estadísticamente significativas de los sectores, como la tasa de crecimiento empresarial, la rotación de inventario y la tangibilidad. Si bien es posible que los resultados no se puedan generalizar a todas las empresas de curtiduría de Etiopía que se encuentran en el país, los hallazgos deberían proporcionar información valiosa a los gerentes para desarrollar sus estrategias con respecto a los determinantes específicos de la empresa.

Palabras clave: Rentabilidad, factores determinantes, empresas de curtiduría, Etiopía.

INTRODUCTION

Profitability is the final and survival goal of the business (Nguyen, K, and M. 2001). Profit in the accounting sense tends to become a long term objective that measures not only the success of the product but also the development of the market for it. It is determined by matching revenue against the cost associated with it. For any firm to continue to be in 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 (Nishanthini, A. et.al, 2013). Profitability can be defined as the final measure of economic success achieved by a company in relation to the capital invested in it (Renato, S. V. 2010).

According to Nimalathan (2009) profitability is defined as the ability of a given investment to earn a return from its use. Profit is the primary objective of a

business. The word profitability is composed of two words profit and ability. The word profit means an absolute measure of earning capacity and it is defined by Iyer (1995) as an excess of return over outlay but the meaning of profit differs according to the use and purpose of the enterprise to earn the profits. Thus the word profitability may be defined as the ability of a given investment to earn a return from its use.

Profitability performs a dynamic role in determining the business success of a firm. Profitability is the amount of money a firm can engender with whatever resources the firm has. The eventual goal for any organization is to maximize its profitability. Consequently, firms can reap the benefits associated with increased profitability (Aloy Nireesh.J. et.al, 2014). Profitability plays an important role in the structure and development of a firm because it measures the performance and success of a firm. It also enhances the reputation of a firm. Maximizing the profits of a firm is one of the main objectives of managers. Profitability is vitally important to corporate performance, especially in competitive environments. The profitability of a firm is thus a key concern, as is the ability to better withstand negative shocks and contribute to the stability of the system. It also maximizes stakeholder value and investor value (Nousheen, T. 2013).

Much concern has been given to profitability in many accounting and finance literature. 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 a 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 (Hifza Malik, 2011). Similarly, Yazdanfar (2013) stated that a firm's profitability is generally regarded as an important precondition for long term firm survival and success and also affects its economic growth, employment, innovation and technological change.

Profitability is a crucial indicator for determining the financial position of the firm. The firm is considered financially weak when its profitability is sliding or the profitability is weak compared to other firms in the industry (Jaggi, B. et al 1990). Performance evaluation is the cumulative consideration of factors that may be representative indicators or appraisal of an individual or entity's activity, or performance in reference to some standards over a period of time. It considers the degree of goal attainment, how items are measured, and what standards are to be applied. Performance evaluation is carried out through two major measures: Financial measures and non-financial measures. (Okwo, I. et al 2013).

According to Hansen and Mowen (1999), financial measures focus mainly on figures which may not tell the whole story of the company. Nevertheless, financial measures are commonly used to evaluate performance. The most commonly used financial measure for performance evaluation is profitability measures. This is because most business concerns function to earn enough profit in order to remain as a going business concern. Hofstrand (2009) also stated that measuring profitability is the most important measure of the success of a business.

A number of factors affect the profitability of an enterprise. Their influence varies in the short term, as well as in the long term. Recognizing these factors

will be very helpful in managing a business entity. These determinants can be of a positive or negative nature (Agnieszka P. 2011). Based on Chenying Lee (2014) internal factors of profitability performance focus on a firm's specific characteristics which can be controlled and managed by the management of a company and the external factors concern both industry features and macroeconomic variables which are beyond the control of the management of the company.

According to the Central Statistical Agency of Ethiopia (2012) manufacturing industry in Ethiopia is a wealth-creating sector of the economy and came into being with the occurrence of technological and socio-economic transformations. The number of manufacturing industries and their support to the national economy in terms of increasing GDP, providing important material support for national infrastructure and reducing unemployment (which also shows an increasing trend of payment of wages and salaries) is increasing over time. The industry also contributes to the economy by paying government taxes.

As long as it is impossible for a business to stay in a market without making a profit, it is an indispensable option to study factors determining profitability on a regular basis. The technologically developed tanner sector plays a vital role in the economy through its contribution to the government's revenue and holds a substantial place in the economy in terms of its job offers for thousands. Therefore, the main aim of this study is to examine the impact of company specific (internal) factors on the profitability performance of Ethiopian tannery companies.

STATEMENTS OF THE PROBLEM

Tannery industry is significant to the economy of the country as a major employment industry, foreign Currency earning, appropriate to the context due to labor intensive methods of production and use of low skilled labor, and great potential available in a large number of livestock. However, different factors affect its competitiveness in the global market.

Analyzing determinant factors of profitability and assessing the relationship of the factors with the Profitability of a business will determine the needs to be taken into consideration in order to increase its profitability performance and will help to build up strategies for maintaining sustainable growth.

Different researchers at different times conducted at the global level have revealed that company Specific as well as industry and macroeconomic factors determine the profitability of manufacturing companies. For instance, Becker et al. (2010) study on the effects of firm size on profitability in the firms operating in the manufacturing sector in the USA, the profitability of the firms is determined by the level of sales and total assets. Velnampy and Nimalathan (2010) examined firm size on profitability between Bank of Ceylon and Commercial Bank of Ceylon in Sri Lanka during ten year period from 1997 to 2006 and found that there is a positive relationship between firm size and profitability in Commercial Bank of Ceylon Ltd, but there is no relationship between firm size and profitability in Bank of Ceylon. Babalola, Y.A (2013) in the study of the effect of firm size on firms' profitability in Nigeria found that size in terms of sales and total asset is a determinant factor of the profitability performance of

manufacturing companies in Nigeria. Based Aggarwal, Priyanka, (2008), Amal, Sameer and Yahaya, (2012) show that liquidity has a positive effect on the financial performance, Vincent and Gemechu (2013) found that liquidity has no significant effect on financial performance, Maleya and Willy (2013) found that leverage has a significant negative effect on financial performance while Yahaya and Limidi (2015) found a positive relationship between leverage and financial performance. Hassan AftabQazi (2011) stated that inventory turnover has a positive and significant effect on profitability. The results of Zhuquan Asif Iqbal and Wang (2014) show inventory turnover negatively affect profitability.

According to salawati (2012) study on the relationship between inventory turnover and financial performance it was found to be significantly positive. This is consistent with prior studies (Fullerton et al., 2003; Eroglie et al., 2011). Rajan and Zingales (1995) found a negative relationship with asset tangibility, A.O Olankule and Emmanuel O. Oni (2015) found a positive relationship between asset tangibility and a firm's profitability.

In studies examining the determinants of profitability, the results are mixed. Asimakopoulou, Samitas & Papadogonas, 2009) have attempted to identify the determinants of profitability using a sample of Greek non-financial firms on the Athens Stock Exchange. They found that Firm profitability was positively affected by the different determinants such as the size of the firms, sales growth and investment, in the meantime, it was negatively affected by leverage and current assets.

To the best knowledge of the researcher, based on the available literature much of the extensive empirical studies conducted in Ethiopia on the determinant factors of profitability are mostly focused on the financial institutions, particularly banks and insurance companies. Such as Damena, (2011), Amdemikael, A. (2012), Birhanu,(2012), Habtamu,(2012) ,Gashaw, (2012) and Feyisa (2014) has identified determinants of Ethiopian banks as well as insurance companies' profitability. Belayneh (2011), pointed out that Ethiopian commercial banks that increase their equity have a lower cost of capital and thus are more profitable. Bank size, loan, and non-interest income of Ethiopian commercial banks are also positive and highly significant factors of profitability.

In summary, studies researching the determinants of profitability have identified several factors in many countries. However, they do not clearly indicate which factors are the most significant in relation to the firm profitability, although different factors have been identified as determinants of profitability in different countries by using the different methods of study. From previous research, it is understood that there are many problems which affect performance of firm profitability.

Specifically, in Ethiopia to the best knowledge of the researcher, no prior study has focused on determinants of profitability in Ethiopian Tannery Companies. Therefore, the major reasons which initiated the researcher to conduct this study are to address the research question to what extent the factors affect the profitability of manufacturing firms in selected Ethiopian Tannery Companies and tries to find out the factors which determine the profitability of the selected Ethiopian Tannery Companies.

OBJECTIVE OF THE STUDY

General Objective

The primary objective of this study is to examine the firm-specific determinants of a firm's profitability in the case of selected Ethiopian Tannery Companies.

Specific Objective

The specific objectives of the study include:

To determine the effect of tangibility on the profitability of Ethiopian Tannery Companies.

To assess the effect of liquidity on Tannery Companies profitability.

To recognize the effect of firm size on the profitability of Tannery Companies in Ethiopia.

To measure the effect of growth rate on the profitability of Ethiopian Tannery Companies.

To determine the relationship between inventory turnover and profitability

To investigate the effect of leverage on profitability.

RESEARCH HYPOTHESES

In order to achieve the objective of the study, a number of hypotheses would be tested regarding the determinants of profitability in the case of selected Ethiopian tannery companies. Based on different empirical research and theoretical reviews made. These testable hypotheses would be formulated as follows.

H1: There is a positive and significant relationship between leverage and profitability.

H2: There is a positive and significant relationship between inventory turnover and profitability.

H3: There is a negative and significant relationship between firm size and profitability.

H4: There is a positive and significant relationship between growth rate and profitability.

H5: There is a positive and significant relationship between Liquidity and profitability.

H6: There is a positive and significant relationship between Tangibility and profitability.

The following are the details of dependent and independent variables:

Dependent Variable

Profitability

According to Hamdan Ahmed Ali Al-Shami (2008), there are different ways to measure profitability such as ROA, return on equity (ROE) and return on invested capital (ROIC). ROA is an indicator of how profitable a company is relative to its total assets. It gives us an idea of how efficient management is in using its assets to generate earnings whereas ROE measures a company's profitability which reveals how much profit a company generates with the money shareholders have invested. ROIC is a measure used to assess a company's efficiency in allocating the capital under its control in profitable investments. This measure gives a sense of how well a company is in using its money to generate returns. Comparing a company's ROIC with its weighted average cost of capital (WACC) reveals whether invested capital is used efficiently or not.

Independent Variables

Liquidity

Liquidity management is important in good times and it takes further importance in troubled times. The efficient management of the broader measure of liquidity, working capital, and its narrower measure, cash are both important for a company's profitability and well-being. In the words of Fraser (1998), "there may be no more financial discipline that is more important, more misunderstood, and more often overlooked than cash management." However, as argued vividly by Nicholas (1991), companies usually do not think about improving liquidity management before reaching crisis conditions or becoming on the verge of bankruptcy. Abuzar (2004), found a significant negative relationship between profitability and liquidity. Samuel and Abdulateef (2016) examined in their study the relationship between liquidity management and profitability of listed food and beverages companies in Nigeria over a 10-year period from 2004 to 2013. They examined out of the 21 listed food and beverages companies in Nigeria, a sample size of 10 firms was drawn. They adopted an ex-post facto research design for their study. Panel data was obtained from the annual reports and accounts of the sampled firms and analyzed using descriptive statistics and generalized least squares multiple regression techniques. To their findings, the cash conversion cycle has an insignificant negative impact on Return on Equity and Earnings per Share respectively. They conclude in their study that the management of listed food and beverages companies in Nigeria can maximize the return to shareholders by shortening the cash conversion cycle of the companies to a justifiable minimum. Based on their findings and conclusion they drew a recommendation that among others, the management of listed food and beverages companies in Nigeria should maximize the use of trade credit and ensure effective and efficient management of cash flows, which result in shorter cash conversion cycles and improve profitability.

Alvin IandTaufik, F. (2015) studied the relationship between liquidity and profitability in the Agriculture and consumer goods sectors in Indonesia between 2005 –2013: aiming to identify the nature of the relationship and whether the relationship is statistically significant or not. The result is there a negative relationship between liquidity and profitability indicators, in line with the risk and return theory. They found out that liquidity and profitability are two important aspects of a company's health. The higher the liquidity of a company, the lower the probability that the company could not fulfill its short-term debt. However, it means that the funds are confined and couldn't be used for productive activities, hence lowering the profitability. On the contrary, the lower the liquidity of a company, the higher the probability that the company could not fulfill its short-term debt, however, it means that the funds could be used for productive activities or investment, hence improving its profitability. According to the risk and return theory which states that the higher the risk, the higher the return and vice versa, the relationship between liquidity and profitability should be a trade-off. However, there have been some studies that gave different results, which indicates there might be a difference in the nature of relationships in different sectors and even different industries or countries.

Endale, T. (2015) assessed in his study the impact of working capital management and firm performance in the case of Breweries in Ethiopia: he used secondary data obtained from audited financial statements of two Brewery firms registered and working in Ethiopia. The financial statements from the firms were analyzed to determine the effect of the cash conversion cycle, inventory conversion period, day's sales outstanding and day's payables outstanding on the gross operating profit. He used to analyze the data by applying SPSS (Version 20.0) Software. Estimation equations by both correlation analysis and pooled panel data regression models of cross-sectional and time-series data were used for analysis. His result revealed that there is a statistically insignificant negative relationship between inventory conversion period, day's sales outstanding, day's payable outstanding and the profitability of the firms. Also, there is a statistically insignificant positive relationship between the cash conversion cycle and profitability.

Tangibility

Tangibility has two conflicting effects on profitability. On the one hand, we expect a positive effect from Himmelberg et al. (1999); they show that tangible assets are easily monitored and provide good collateral and thus they tend to mitigate agency conflicts between shareholders and creditors. On the other hand, we predict a negative correlation, because firms with high levels of tangible assets tend to be less profitable. Firms with high levels of intangible assets (in form of liquidity) have more investment opportunities in the long term, innovation and research and development (Deloof, 2003, and Nucci et al., 2005). The negative relationship between tangibility and profitability has been confirmed in a number of studies as Rao et al. (2007), Zeitun and Tian (2007), Weill (2008) and Nunes et al. (2009). In addition, Majumdar and Chhibber (1999) and Margaritis and Psillaki (2007) find a positive relationship. To determine the

effect of tangibility on profitability, we use the ratio (TANG); it is calculated by dividing the sum of net tangible assets by total assets.

Firm Size

Empirical evidence has given varying results relating to the relationship between firm size and profitability. In this view, Velnampy and Nimalathasan (2010) examined firm size on profitability between Bank of Ceylon and Commercial Bank of Ceylon in Sri Lanka during ten year period from 1997 to 2006 and found that there is a positive relationship between firm size and profitability in Commercial Bank of Ceylon Ltd, but there is no relationship between firm size and profitability in Bank of Ceylon. Demsetz (1973) offers an alternative explanation for the relationship between firm size and profitability, arguing that the greater profits of large firms have little or nothing to do with conventional scale economies. Using Internal Revenue Service data, he observes that large firms earn higher profits in highly concentrated markets while smaller firms earn a normal return. In the contrast, Managerial utility maximization thus provides a conceptual framework for a negative relationship between firm size and profitability (Amato and Wilder 1985). Hall and Weiss (1967) reported that size did tend to be associated with higher profit rates, however, reached the opposite conclusion.

While Marcus (1969) found either a weak negative relationship or none at all, Hall & Weiss (1967) observed through their studies a positive association that disappears or reverses itself among the firms with the largest assets.

Firm size has been recognized as an essential variable in explaining organizational profitability and a number of studies tried to explore the effect of firm size on profitability. John & Adebayo (2013) examined the effect of firm size on the profitability of the Nigerian manufacturing sector.

Panel data set over the period of 2005-2012 was obtained from the audited annual reports of the Selected manufacturing firms listed on the Stock Exchange. Return on assets (ROA) was used as a proxy for profitability while log of total assets and log of turnover were used as proxies for firm size. Furthermore, liquidity, leverage and the ratio of inventories to total assets were used as the control variables. In their results, the study revealed that firm size, both in terms of total assets and in terms of total sales, has a positive effect on the profitability of Nigerian manufacturing companies. Meanwhile, on the control variables, a negative relationship with inventory was obtained while others have a positive relationship. They recommended for future researchers investigate sector effects on the relationship between firm size and profitability in Nigeria.

Growth Rate

Trau (1996), Sutton (1997), and Hart (2000) have reviewed the theoretical and empirical literature on firm growth. In the early empirical literature, a number of manufacturing studies find either no relationship or a positive relationship between firm sizes and growth rates. MacMillan and Day (1987) considered that rapid growth could lead to higher profitability based on evidence that new firms

become more profitable when they enter markets quickly and on a large scale. On the other hand, Hoy (1992) concluded that the pursuit of high growth may be minimally or even negatively correlated with firm profitability. Keith (1988) examined the relationship between company characteristics, profitability and growth using accounts data for a sample of 38 small manufacturing firms and his research revealed that size, age, location, and industry group are found to be of limited value in explaining profitability. The use of growth as a measure of firm performance is generally based on the belief that growth is a precursor to the attainment of sustainable competitive advantages and profitability (Markman, 2002). In addition, larger firms have higher rates of survival (Aldrich 1986) and may have the benefits of associated economies of scale. While growth has been considered the most important measure in small firms, it has also been argued that financial performance is multidimensional in nature and that measures such as financial performance and growth are different aspects of performance that need to be considered (Wiklund, 1999). However, larger firms are found to grow faster than smaller, and younger firms are found to grow faster than older.

Inventory Turnover

Nweze (2011) says that inventory turnover is computed by dividing the cost of goods sold by the average inventory. An average inventory is determined by adding the beginning and ending inventories and dividing them by two. The decline in the inventory turnover indicates the stocking of more goods. An attempt should be made to determine whether specific inventory categories are not selling well and the reason for this. Emekekwe (2005) argues that the stock turnover ratio seeks to identify the length of time that stock is held as inventory before it is converted to cash. In organizations where stocks are perishable, holding large stocks is very costly to the business. However, if stock is not the perishable type, delays in disposing of stock might be profitable during an inflationary period. It must be appreciated that sales will be valued at cost; this is because the stock will be valued at cost. If the sales were not valued at cost, then we shall be overstating the ratio. Moreover, one will be comparing two incomparable i.e. the sales figures and the cost of the stock. Furthermore, the inventory turnover ratio measures the average number of days for which stock is held. It helps to assess the efficiency of stock utilization. Various factors affect the stock level held by the organization such as product, production-seasonal or otherwise, demand pattern, competition, funds availability, etc.

Leverage

Consistent with previous work, such as Baker (1973) or Bothwell et al. (1984), the results indicate that higher leveraged firms (with relatively high liabilities) are more profitable. Evidently, the more extensively firms use debts as the source of financing the higher its profits. An explanation can be that more profitable firms have had easier access to debt financing and do not need to rely exclusively on equity capital. Alternatively, it could be argued that higher leveraged firms bear greater risks of bankruptcy and need to compensate stakeholders with

higher profits. Obigbemi I. et al (2016) studied on financial structure that finance mix is a major factor that affects the liquidity and the going concern of a business enterprise. After an idea has been conceived by an entrepreneur, there is need to also analyze the capital required for startup and means of financing the project. A good combination of sources of finance is expected to boost the profitability of an organization, but if not properly mixed, could have a negative effect on the profitability of the organization. The main objective of their study is to evaluate the effects of financial structure on the profitability of manufacturing companies in Nigeria. Their study employed the use of secondary data. The Spearman's Rank correlation and regression techniques were used for analysis, using the STATA Package for a sample of 25 manufacturing companies quoted on the Nigerian Stock Exchange for the period 2008-2012. Their study showed that equity has a significant positive relationship with the profitability of manufacturing companies in Nigeria. They recommended that managers should place greater emphasis on the facilitation of equity capital and policy makers should encourage manufacturing companies by reducing the cost of debt.

RESEARCH METHODOLOGY

Research design

The primary aim of this study was to examine the determinants of profitability in selected Ethiopian tannery companies. To achieve this objective explanatory type of research design with a quantitative approach is employed to analyze the collected data. The explanatory type of research design helps to identify and evaluate the causal relationships between the different variables under consideration (Marczyk et al., 2005). Thus, in this study, the explanatory research design was employed to examine the relationship between the dependent and independent variables.

Data source

This study used only secondary data source from the audited financial statements of the selected Ethiopian Tannery Companies. Secondary data was used to examine the determinants of Company performance. According to Stewart and Kamins (1993) cited in Li Yuqi (2007), secondary data have its own advantages. Compared to primary data, secondary data gives higher quality data, the feasibility to conduct longitudinal studies and the permanence of data which means secondary data generally provide a source of data that is both permanent and available in a form that may be checked relatively easily by others. Therefore, increases the dependability of the data. The data for the Company specific factors was obtained from audited financial statements, i.e. from balance sheet and income statement of the respective Tannery Companies.

Sampling and sampling technique

Sample design deals with the sample frame population, sample size, growth, and sampling techniques. Survey sampling is the process of choosing, from a much large population, a group that wishes to make generalized statements so that the selected part represents the total group (Leedy, 1989). According to the Leather and Leather Products Technology Institute of Ethiopia (LLPTI) at the moment in operation, a total of 29 Tannery Companies are located in Ethiopia, to undertake this research paper, the researcher used Nonprobabilistic sampling specifically judgmentally sampled eight (8) Tannery Companies which have been operated for the last ten fiscal years to have rich documentary sources. The sample studies of Tannery Companies are located in Addis Ababa city Administration and Oromia Region. The lists are as follows: Addis Ababa Tannery (located in A.A), Walia Tannery (located in A.A), East Africa Tannery (located in A.A), Mojo Tannery (located in Mojo), Ethio-Tannery (located in A.A), Blue Nile Tannery (located in A.A), Bale Tannery (located in A.A) and Kombolcha Tannery (located in A.A).

Regression Analysis

Multiple regression analysis was used to examine the relationship between the explanatory Variables (ROA, Liquidity, Tangibility, Inventory turnover, Firm size, Leverage and Firm Growth). One way to study company performance is regression analysis, which allows modeling the functional form of dependence between various economic and financial indicators. Modeling economic performance aims to increase efficiency by improving interventions in an adaptive-learning cycle (Campbell et al, 2001). Ordinary least square (OLS) in the form of multiple regression method was used in the empirical analysis by using SPSS.20.

FINDINGS AND DISCUSSIONS*Model Specification*

To find out the impact of the above independent variables on profitability, the following ordinary least square (OLS) regression model is used. The upper level of statistical significance for hypotheses testing was set at 5%. All statistical test results were computed at the 2-tailed level of significance.

$$ROA_{i,t} = \beta_0 + \beta_1 LEV_{i,t} + \beta_2 ITR_{i,t} + \beta_3 FS_{i,t} + \beta_4 GR_{i,t} + \beta_5 LEQ_{i,t} + \beta_6 TAN_{i,t} + \epsilon_{i,t}$$

Where;

ROA = Return on Asset,

LIQ = Liquidity,

TAN = Tangibility,

FS = Firm Size,

GR= Growth rate,

ITR=Inventory turnover,

LEV= Leverage
 $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 - Model coefficients = Error term, i, t = for firm i, period t

Table 31
 Explanations of the study variables

Variable in short	Variable in full	Levels of measurement
ROA	Return on asset	Ratio: earnings before income tax to total asset ratio
LEV	Leverage	Ratio: total debt of tannery companies to their total asset
ITR	Inventory turnover	Ratio: total cost of goods sold to the average inventory
LogTA	Firm size(total asset)	Level: total assets of tannery companies in logarithms
GR	Firm growth rate	Rate: (Current period sale minus Last period sale) divided by Last period sale times 100.
LIQ	Liquidity-current ratio	Ratio: firm's current assets(CA) to its current liabilities(CL)
TAN	Tangibility	Ratio: net tangible assets to total assets

Own computation based on financial statements of selected tannery companies

Multiple regression Analysis Multiple Regression Output and its discussion Coefficients^a

Model	Unstandardized Coefficients		t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
	B	Std Error			Beta	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.100	.061		1.642	.105	-.021	.222		
LEV	.001	.017	.008	.060	.952	-.033	.035	.603	1.659
ITR	.007	.003	.310	2.758	.007*	.002	.012	.820	1.220
LogTA	-.007	.007	-.107	-.968	.336	-.021	.007	.850	1.177
GR	.002	.001	-.217	-1.947	.045*	-.004	.000	.830	1.204
LIQ	.002	.002	.104	.784	.436	-.003	.006	.588	1.700
TAN	.029	.011	.263	2.523	.014*	.006	.051	.951	1.052

SPSS20. Output Result

a. Predictors: (Constant), TAN, LEV, ITR, LogTA, GR, LIQ

b. Dependent Variable: ROA

The econometrics model employed in this study was the following.

$$ROA_{i,t} = \beta_0 + \beta_1 LEV_{i,t} + \beta_2 ITR_{i,t} + \beta_3 FS_{i,t} + \beta_4 GR_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 TAN_{i,t} + \epsilon_{i,t}$$

After running this equation using SPSS20. the regression model was as follows.

$$ROA = 0.100 + 0.001LEV + 0.007ITR - 0.007LogTA + 0.002GR + 0.002LIQ + 0.029TAN + \epsilon_{i,t}$$

$$R^2 = 24.6\% \text{ Adjusted } R^2 = 18.4\% \text{ F-statistic} = 3.964, \text{ Durbin Watson stat.} = 1.485$$

Based on the result above the researcher can interpret the sign and magnitude of their relationship with the dependent variable. Accordingly, an R-squared value of about 0.246 and an Adjusted R-Squared value of 0.184 would indicate that our model (our explanatory variables modeled using Ordinary least square

linear regression) explains approximately 24.6% and 18.4% of the variation in the dependent variable respectively.

The F-Statistic indicates that the overall model (Ordinary least square we estimated) is statistically significant. The null hypothesis for F-statistic is that the explanatory variables in the model are not effective. A 95% Confidence level indicates that our model is a statistically significant model. In the case of a small sample, the adjusted R² value should be considered as it provides a more accurate estimation of the true population value (Pallant, 2007, p.158). There is a rule of thumb that can be used to determine the adjusted R² value as follows: < 0.1: poor fit, 0.11 to 0.30: modest fit, 0.31 to 0.50: moderate fit, >0.50: strong fit (Muijs, 2004, p. 166). The adjusted R² is 18.4%. It indicates that the formula is a modest fit for predicting the ROA. The Durbin-Watson Statistic is used to test for the presence of serial correlation among the residuals. In our case the value of the Durbin-Watson statistic is 1.485, which is greater than 1, indicating no serial correlation or autocorrelation.

HYPOTHESIS TESTING

The regression of LEV, ITR, LogTA, GR, LIQ and TAN on ROA has revealed that the slope of the regression lines (β_1 , β_2 , β_3 , β_4 , β_5 and β_6) are 0.001, 0.007, -0.007, 0.002, 0.002 and 0.029 respectively. However, these values are the best immediate guess of the impact of these explanatory variables on the dependent variable holding other things remain constant. Therefore, this is just an estimate and that the true values of the slopes are probably not exactly these of the null hypothesis that a coefficient equals zero. To test the hypothesis set in this study the researcher used the p-value to decide on the null and alternative hypothesis. A test of this study's hypothesis is conducted one by one as follows:

Hypothesis 1

H1: There is a positive and significant relationship between Leverage and Profitability.

As reported in table 4.4.6 the regression result indicate that there is a positive relationship between leverage and return on assets of selected tannery companies in Ethiopia. According to the regression result the coefficient of leverage is 0.001 and its P-value for this coefficient is 0.952. Therefore, the researcher has no sufficient evidence to reject the null hypothesis at 5 percent significance level implying that there is no relationship between leverage and profitability of selected tannery companies in Ethiopia eventhough it has a positive relationship between them. The result suggested that the selected Ethiopian Tannery companies should use its maximum concentration on borrowing and debt because their relationship is positive when use debt or mix it has positive impact on return on asset. This finding is aligned with the study results of Amal, Sameer, &Yahya, (2012) and Zhao & Wijewardana (2012).The result is inconsistent with the reports of Nawaf, (2015), Yahaya and Lamidi (2015); Maleya and Willy (2013).

Hypothesis 2

H1: There is a positive and significant relationship between Inventories Turnover and profitability

The regression result also indicates that Inventory turnover of selected Tannery Company's statistically significant impact on their profitability as measured by their return on assets. The impacts of Inventory turnover of these companies on their return on assets are 0.007 in absolute value with its P-value of 0.007. Therefore; the researcher has sufficient evidence to reject the null hypothesis at 5 percent significance level implying that there is relationship between Inventory turnover and profitability of selected Tannery Companies in Ethiopia. This finding was consistent with the findings of Doma, R.M. (2014) Kosmidou and K. et al (2006) and inconsistent with Rokas Bekeris (2012), Noor, A.M (2014) and Husni, A. et al (2011)

Hypothesis 3

H1: There is a negative and significant relationship between Firm size and profitability.

According to the regression result reported in Table 4.4.6. Firm size as measured by logarithms of total asset of selected Tannery Companies has not statistically significant impact on their profitability. The result indicates that firm size has negative impact on profitability with its coefficient -0.007 and P-value 0.336. Therefore, the researcher has no evidence to reject the null hypothesis that firm size and profitability of selected tannery companies has no relationship at 5 percent significance level. It is inline with the finding of Becker et al. (2010) have studied the effects of firm size on profitability in the firms operating in manufacturing sector in USA using the data of years 1987 to 2002. Results of the study showed that negative and statistically significant relations exist between the total assets, total sales and number of employees of the firms and their profitability and inconsistent with the finding of Velnampy and Nimalathasan (2010) found that there was positive relationship between firm's size and profitability in commercial Bank of Ceylon Ltd.

Hypothesis 4

H1: There is a positive and significant relationship between Growth rate and profitability.

The regression result also indicates that firm's growth rate of selected Tannery Company's statistically significant impact on their profitability as measured by their return on assets. The impact of firm's growth rate of these companies on their return on assets is found to be 0.002 in absolute value with its P-value of 0.045. Therefore; the researcher has sufficient evidence to reject the null hypothesis at 5 percent significance level implying that there is relationship between firm's growth rate and profitability of selected tannery companies in Ethiopia. This result was aligned with D.yazdanfar (2013) and A.K salman and D.yazdanfar (2012) found that the firm growth have a positive effect to the profitability while the result was inconsistent to A.coad (2011) and J.M Jasra (2011) found that the growth of the firm have a negative effect to the profitability.

Hypothesis 5

H1: There is a positive and significant relationship between Liquidity and profitability.

As reported in the above the regression result indicates that there is a positive relationship between liquidity ratio and return on assets of selected tannery companies in Ethiopia. According to the regression result the impact of liquidity

on return on asset of these companies is found to be 0.002 in absolute value with its P-value of 0.436 for this coefficient, the researcher has no sufficient evidence to reject the null hypothesis at 5 percent significance level implying that there is no relationship between liquidity and profitability of selected tannery companies in Ethiopia. The finding of this study was consistence with the findings of Syeda, (Amal, Sameer, &Yahya, 2012), (Maleya, & Willy, 2013), MBA Andrgachew Haile (2015). The result is however at variance with the findings of Yahaya and Lamidi (2015), who found a negative relationship between liquidity and profitability.

Hypothesis 6

H1: There is a positive and significant relationship between Tangibility and profitability.

Tangibility is one of the statistically significant variables to explain variation in the profitability of selected tannery companies. The regression result indicates that tangibility has a positive impact on profitability though the coefficient of relationship is different from zero. Found to be 0.029 in absolute value with its P-value of 0.014 the researcher has sufficient evidence to reject the null hypothesis that this variable has relationship with selected tannery companies' profitability at 5 percent significance level. The finding of this study was consistence with the findings of A.O Olankule and Emmanuel O. Oni (2015) and inconsistent with Rajan Zingales (1995) found negative relationship with asset tangibility and profitability.

CONCLUSIONS

Tannery companies play a significant role in the economy of Ethiopia as a major employment industry, foreign currency earning, appropriate to the context due to labor intensive methods of production and use of low skilled labor, and great potential available in a large number of livestock. Nevertheless, Ethiopia could not benefit to the extent of the potential we have to expand and sustain the sector due to a number of factors affecting its competitiveness in the global market. There are several factors constraining the proper functioning of tannery companies. These factors may arise from internal or external sources.

The current paper is an attempt to identify internal factors affecting the profitability of selected tannery companies in Ethiopia based on panel data obtained from the financial statement of these companies over the period 2008-2017G.C. In order to answer the research questions, the researcher employed descriptive statistics, correlation matrix and regression model using SPSS.20 statistical package. The correlation analysis shows that there is a weak linear relationship among the variables. The fact that there is a weak linear relationship (below 0.5) among the explanatory variables indicates that there can be included all the explanatory variables in the model.

The study also tried to empirically test the impact of LEV, ITR, LogTA, GR, LIQ and TAN on the ROA of selected tannery companies in the country by employing Ordinary least square techniques in the form of a multiple linear regressions model. The result from the empirical examination found that only the ratio of net tangible assets to total assets (TAN), the ratio of the total cost of goods sold to average inventory (ITR) and the ratio of

change between current year sales and last year's sales to last year sales (GR) have a statistically significant effect on the ratio of earnings before income tax to the total asset of the companies (ROA) based on these sample data. It shows that if total inventory turnover, firm's growth and asset tangibility increase, profitability performance will increase. However, the firm's size variable has a negative and insignificant impact on the profitability performance of selected Ethiopian Tannery companies. This indicates that an increase in firm's size will decrease profitability performance. On the contrary, the other company-specific (internal) variables Leverage and Liquidity have a positive and insignificant impact on the profitability performance of selected Ethiopian Tannery Companies. Even though both have positive relationship; they are not determinant factors at a 5% significance level. In addition, the result of multiple regression models shows that Inventory turnover, Firm growth, and asset tangibility are the most important determinants of profitability performance of the selected Tannery companies in Ethiopia respectively in order of their degree of influence.

The explanatory variables in the model are able to explain about 24.6% of the variation in the dependent variable ($R^2=0.246$) and the overall model is jointly significant (F-statistic). The fact that our D-W statistic is close to two indicates that the model is also free from the problem of autocorrelation. The study also conducted post estimation residual diagnostic tests and found that the residuals are normally distributed, free from the problem of heteroscedasticity, autocorrelation and multicollinearity.

RECOMMENDATIONS

Based on the findings of the regression analysis and conclusion, the following recommendations were forwarded.

The firms have to be conscious of that the leverage effect of debt financing. Because the more debt ratios increase, the more financial risk increases and the debt costs increase accordingly. Therefore, the profitability of debt financing has a limit. Excessing this limit in debt financing increases the cost of financing and the financial risk of the firm, it decreases the ROA. In addition to them, the economic conditions for debt financing must be convenient. In the periods of monetary expansion, the interest rates of credits are suitable and the economic conditions are well and sales trends are upward, debt financing may be profitable for the firms. Furthermore, those firms who are using no or little debt have to be conscious that feasible debt use can increase the firm profitability.

The ratio of the total cost of goods sold to the average inventory of the Companies (ITR), the ratio of change of current year sales and last year sales to last year sales (GR) and firm Tangibility (TAN) have a significant positive impact on ROA. However, their impact is low. Therefore, firms can increase their profitability by increasing their sales volume.

The negative relationship between companies' profitability (ROA) and firm size, leads to a decrease in a firm's profitability. In order to increase their size, Tannery Companies should have to look for their competitive edge with their competitors to compete by lowering production costs to increase their market

share. If they are willing to expand in terms of size, they must have to take care of not losing their economies of scale advantage.

In line with the finding of this study, the primary recommendation suggests that Tannery Companies should better give attention to statistically significant variables to maximize their profitability performance so as to increase profitability.

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