

F.O. Olaoye , **A.A. Olaoye** * 

Ekiti State University, Nigeria, Ado Ekiti

*e-mail: olaoyeazeez@gmail.com

OPTIMIZING LOAN CAPITAL FOR EFFECTIVE PERFORMANCE OF NIGERIAN LISTED FOOD AND BEVERAGE COMPANIES

This study examines how to optimize loan capital for achieving greater performance by Nigerian listed foods and beverages companies. The study used secondary source of data to obtain panel data from the financial records of the selected companies between 2011 and 2020. A sample of four (4) listed firms were purposively selected based on availability of data from the study population of eight (8) foods and beverage listed firms on the Nigerian Stock Exchange. The study employed fixed effect and random effect models for data estimation. The study found that the coefficient of -0.00892638 with a P-value of $0.9405 > 0.05$ reflected a negative insignificant effect of short-term debts on performance, while the coefficient of 0.0327119 with a P-value of $0.7630 > 0.05$ showed a positive effect of long-term debts on performance of the companies indicating that the results were mixed as the results revealed positive and negative effects of long-term debt and short-term debt on the firms' performances. The study discovered that foods and beverages firms in Nigeria could improve their performances by either increasing their investments in long-term loans or reducing their investments in short-term loans.

Key words: Optimizing Loan capital, financial performance, foods and beverages firms.

Ф.О. Олаойе, А.А. Олаойе *

Экити мемлекеттік университеті, Нигерия, Адо-Экити қ.

*e-mail: olaoyeazeez@gmail.com

Нигериялық тамақ және сусындар компанияларының тиімді жұмысы үшін капиталды оңтайландыру

Бұл зерттеу Нигериялық тамақ және сусын компаниялары үшін жақсы нәтижелерге қол жеткізу үшін левереджді қалай арттыруға болатынын қарастырады. Зерттеу 2011 және 2020 жылдар аралығындағы таңдалған компаниялардың қаржылық есептілігінен панельдік деректерді алу үшін қосымша деректер көзін пайдаланды. Төрт (4) листингілік компанияның үлгісі сегіз (8) компанияның зерттеу тобынан алынған деректердің қолжетімділігі негізінде арнайы таңдалды. Азық-түлік және сусындар компаниялары Нигерия қор биржасында листингтен тұрады. Зерттеу деректерді бағалау үшін тіркелген және кездейсоқ әсер модельдерін пайдаланды. Зерттеу көрсеткендей, P-мәні $0,9405 > 0,05$ болғанда $-0,00892638$ қатынасы қысқа мерзімді қарыздың өнімділікке болмашы теріс әсерін көрсетеді, ал P-мәні $0,7630 > 0,05$ болғанда $0,0327119$ қатынасы оң әсер етті. Ұзақ мерзімді қарыздың фирмалардың жұмысына әсер етуі, бұл нәтижелер ұзақ мерзімді және қысқа мерзімді қарыздардың фирмаларға оң және теріс әсерін анықтағандықтан нәтижелер аралас болғанын көрсетеді. өкілдігі. Зерттеу көрсеткендей, Нигериядағы тамақ өнімдері мен сусындар компаниялары ұзақ мерзімді несиелерге инвестицияларын ұлғайту немесе қысқа мерзімді несиелерге инвестицияларын азайту арқылы өз жұмысын жақсарту алады.

Түйін сөздер: қарыз капиталын оңтайландыру, қаржылық көрсеткіштер, тамақ және сусын кәсіпорындары.

Ф.О. Олаойе, А.А. Олаойе *

Государственный университет Экити, Нигерия, г. Адо-Экити

*e-mail: olaoyeazeez@gmail.com

Оптимизация кредитного капитала для эффективной деятельности нигерийских компаний по пищевым продуктам и напиткам

В этом исследовании рассматривается, как увеличить заемный капитал для достижения более высоких результатов нигерийскими компаниями по производству продуктов питания и напитков. В исследовании использовался вторичный источник данных для получения панельных данных из финансовых отчетов выбранных компаний в период с 2011 по 2020 год. Выборка из четырех (4) зарегистрированных на бирже компаний была специально отобрана на основе наличия данных из исследуемой совокупности из восьми (8) компаний. Фирмы, производящие продукты питания и

напитки, котируются на нигерийской фондовой бирже. В исследовании использовались модели с фиксированным и случайным эффектом для оценки данных. Исследование показало, что коэффициент $-0,00892638$ при P -значении $0,9405 > 0,05$ отражает отрицательное незначительное влияние краткосрочных долгов на производительность, в то время как коэффициент $0,0327119$ при P -значении $0,7630 > 0,05$ показало положительное влияние долгосрочных долгов на деятельность компаний, указывая на то, что результаты были неоднозначными, поскольку результаты выявили положительное и отрицательное влияние долгосрочных и краткосрочных долгов на фирмы». представления. Исследование показало, что компании по производству продуктов питания и напитков в Нигерии могут улучшить свои показатели, либо увеличив свои инвестиции в долгосрочные кредиты, либо сократив свои инвестиции в краткосрочные кредиты.

Ключевые слова: оптимизация заемного капитала, финансовые показатели, предприятия по производству продуктов питания и напитков.

Introduction

Understanding the effects of any source of loan capital on the firms' performance is imperative to business owners and managers around the world because of the fear of financial risk, going concern problems and consequent future liquidation. Loan capital is the application of short-term and long-term debts to finance a business. Both short-term and long-term loans may not have similar effect on the firms' financial performance because of their different risk profiles and returns (Edori, Ekweozor & Ohaka, 2020). Loan capital may involve financial risks but yet may still yield returns to the firms (Aniefor & Onatuyeh, 2019). However, wrong choice of loan capital sources to run a business has caused some businesses failure the in the past (Eleje, Okechukwu & Chikanele, 2020). Loan capital has been the capital based financing decisions of some firms in Nigeria due to the fact that the financial system of the country is characterized with the restricted access to equity markets for raising share funds (Harelimana, 2017). The optimal loan capital -mix means a combination of loans that can minimize the weighted average cost of capital and increase firms' profitability (Taiwo, 2012). Foods and beverages industries as part of consumer goods manufacturers are playing significant roles in social-economic well-being of the people and Nigerian economic growth. The assessment of the relationship between loan capital and performance of food and beverages companies is necessary in order to enlighten their stakeholders on what might lead to a success or cause a failure to their businesses during the capital formation and decision as the numbers of the firms in the food and beverages industries according to Edori et al., 2020) still continue to from time to time decline.

The review of related studies such as Akhtar, Maryam, and Sadia (2012); Taiwo (2012); Hayam (2013); Tally (2014); Denis (2017); and a host of other

researchers have concentrated their investigations on other industries like Breweries, industrial goods, toil and gun, household goods and fuel, energy, Small Medium Enterprises and educational industries, but this study focused on food and beverages industries. Besides, the results of the reviewed relevant studies on this study' area like Hayam (2013); Tally (2014); Denis (2017); Edori, Ekweozor and Ohaka (2020); Eleje, Okechukwu, and Chikanele (2020) revealed mixed effects that require further research. It is based on the identified gaps above that this study is examining uptimizing loan capital for egfective performance of Nigerian listed foods and beverages companies. Specifically, the study evaluated the effect of uptimized usage of short-term loan to enhance performance and uptimized usage of long term loan to enhance performance of the selected firms'. Thus, the study hypothesized that uptimizing short term loan usage has no effect on performance of foods and beverage listed firms in Nigeria and uptimizing long-term loan usage has no effect on performance of foods and beverage listed firms in Nigeria. However, the results from the study are expected to discover positive effects of the study's independent explanatory variables on performance of the selected firms in Nigeria.

Literature Review

Loan capital

Loan capital is the application of short-term and long-term loans to fund the operations of a company. In financing through the loan, a firm may face certain bankruptcy risk, but will enjoy tax benefits associated with debt financing (Aniefor & Onatuyeh, 2019). The two modes of loan capital are short-term debts and long-term debts (Sohail & Ulfat, 2019). Loans in a firm's liabilities account is usually made up of both long-term and short-term bank loans (Omete & Isabwa, 2017). Short-term loans include bank overdrafts and other soft

loans that are repayable within a year, while long-term loans are the fixed- charged loans facilities like debenture that are repayable after more than one year. The amount of outstanding of short-term debts is a good measure of a firm's financial health (Kajirwa, 2015). Short-term debt is the best financing source because is perceived to be less costly for the firms (Mathewos, 2016). According to Ikapel and Kajirwa, (2017), short-term loans in companies' accounts are shown in the current liabilities portion of a firm's statement of financial position that is due for repayment within a year (Mathewos, 2016). Short-term debt may positively correlate with firm's growth opportunities (Onchong, Muturi & Atambo, 2016). Short-term loans are superior for limiting the managerial discretion and minimizing moral hazard on the part of the firms (Tally, 2014). Long-term debts show the percentage of assets financed with debt which is payable after more than one year (Ali, Badruldeen, Alisha & Tim, 2020). Long-term loans include bonds and long-term loans (Hayam, 2013). These bonds or loans may carry higher interest rates because the lenders will want to demand for a higher return in exchange for their greater risks taking on giving out their money over a long period of time (Akhtar, Maryam, and Sadia, 2012). Really, long-term loan limits the managerial discretion of having access to new funds (Denis, 2017). Edori, Ekweozor, and Ohaka (2020) highlighted that both long-term and short term debt ratios are a good measure of loan capital in developing countries because of the fund mismatch caused by limited access to capital sources.

Performance

Performance is an economic outcome that needs to be achieved by an individual or group of individual in an organization. Performance is a measure of firms' profitability (Mathewos, 2016). Performance is a business outcome or results showing the overall financial health of a business at a particular period (Naz, Ijaz & Naqvi, 2016). Financial performance shows how well a firm has utilized its resources to maximize the shareholders' wealth and firms' profitability (Edori, Ekweozor & Ohaka, 2020). Financial performance measures the company's financial health condition in a given period (Mathewos, 2016). Measuring financial performance is very imperative to the users of accounting information as it reflects the firms' going concern (Edori et al, 2020). A firm records of higher financial performance is likely to attract more investors than the one with lower financial performance (Edori et al, 2020). Recording high financial performance by a firm means it has utilized

her resources effectively and efficiently (Edori et al, 2020). Recording a higher financial performance in a business indicates how more efficient and effective the firm has engaged its available resources and this will eventually contribute to the country's economy growth (Mathewos, 2016). Firms' performance could be measured using variety of financial ratios, but this study used return on assets as a measure of foods and beverages firms' financial performance.

Theoretical Review

Pecking Order Theory

Pecking Order Theory was popularized by Myers and Majluf (1984). The theory stated that the existence of market information between the firms and the providers of capital causes the costs of financing to vary from different sources (Edori, Ekweozor & Ohaka, 2020). Pecking Order Theory explained that companies should give equity financing a priority based on the principle of least effort by preferring to use equity capital as a last resort (Edori et al, 2020). Therefore, Myers et al. (1984) suggested that 'more profitable companies are less levered than those companies with greater investment opportunities that may need external financing in line with pecking order theory. Myers et al. (1984) explained further that because of the risk involved, business entities will prefer internal sources of finance to external debt financing. But when external capital is deemed necessary, the entities will prefer the external to internal source because of lower costs of information associated with using debt finance.

Equity financing is employed first but, when it is depleted then the debt will be issued (Edori, Ekweozor & Ohaka, 2020). Thereafter when it is no more be reasonable to raise additional debt, then equity is issued (Edori, Ekweozor & Ohaka, 2020). Consequently, the investors will place a very lower value for the issuing of the new equity (Edori, Ekweozor & Ohaka, 2020). The theory assumed that equity and retained earnings sources of financing a business should be given a priority and as well should be the last resorts, but when there are urgencies and it becomes unavoidable for the entities to use any equity, the debt finance has to be raised. But the implication is that increased use of external capital such as debt will influences the firm value negatively and increases the chances of insolvency. The theory assured that firms could raise debt funds to finance their activities when they have the assurance that the market will fully appreciate the firm's potential. The theory considered debt financing when there is no mean of financing through any equity capital. The theory explained and balanced the cost-benefit

analysis associated with financing mix of a firm. Therefore, Pecking Order Theory fits this study.

Empirical Review

Akhtar, Maryam, and Sadia (2012) examined the 'relationship between financial leverage and financial performance: evidence from the fuel and energy sector of Pakistan'. The study used twenty public companies from the Fuel and Energy sector listed on Karachi Stock Exchange. The study employed regression analysis to analyze the data collected. Finding from the study showed that 'financial leverage has a positive relationship with financial performance'. Hayam (2013) conducted a research on the 'debt and financial performance of Small Medium Enterprises: the missing role of debt maturity structure' in Egypt. The panel data was collected and analyzed using random effects. The study found that short-term debt and long-term debt have an opposite effect on financial performance. The study concluded that the level of leverage does not determine financial performance, but rather by the debt maturity structure, Tally (2014) examined the 'effect of financial leverage on firms' financial performance in Saudi Arabia's public listed companies'. The study 'sampled 57 publicly trading firms listed in Saudi Stock Exchange for the years 2002 to 2010'. The study used some techniques such as ANOVA maximum, value, standard deviation, and mean factor analysis, using the SPSS software for analysis. The study found a 'positive relationship between financial leverage and performance'. The studies concluded that the 'above provided empirical evidence supported the theory of financial leverage indicating a positive effect of financial leverage on the performance of the company'. Denis (2017) examined the 'effect of debt financing on the financial performance of private secondary schools in Nairobi, Kajiado County'. The study adopted a descriptive research design and made use of secondary data. Multiple regression analysis was employed to analyze the data gathered. The study 'found that 'there exist a positive insignificant relationship between debt financing and financial performance and between revenue growth and financial performance of private secondary schools in Kajiado County'. The study concluded that 'debt financing does not affect the financial performance of private secondary schools in Kajiado County'.

Taiwo (2012) studied the 'Effect of debt-equity financing on firms performance' using some selected firms listed on the Nigerian Stock Exchange for a period of five years (2006-2010). The study used a regression model for data analysis. Findings from

the study revealed a positive effect of long-term debt on the firms' performance but 'the sampled firms were unable to utilize the composition of a fixed asset to their total assets properly to impact positively on their firms' performance'. Eleje, Okechukwu and Chikanele (2020) conducted a research on 'Debt finance and corporate performance: firm level empirical evaluation'. The study used secondary source of data to obtain data from the annual accounts and reports of the selected firm for a period of 12-year period (2007-2018). The data gathered was analyzed using multivariate linear regression. The found that the two null hypotheses sustained because their P-values > 0.05 with their corresponding t-values. The study concluded that long-term debt and short-term debt sources of finances have no significant positive impact on the corporate performance measured in terms of ROA and ROE. The study recommended that the financial managers of corporate firms should design optimum capital-mix for long-term debt and short-term debt finances based on their varied impact on the corporate performance.

Methodology

This study's population comprises eight (8) listed foods and beverages manufacturing companies on Nigerian Stock Exchange as at 31st December, 2019 which include Cadbury Nigeria Plc, Dangote Sugar Plc, Flour Mills Plc, Honeywell Flour Mill Plc, Multi-trex Integrated Foods Plc, Northern-Nigerian Flour Mills Plc, Union Dicon Salt Plc and National Salt Corporation of Nigeria Plc. The study covered a period of eleven years (2011-2020) and focused on the foods and beverages industries to examine the effects of optimizing Loan capital for effective performance of foods and beverages firms in Nigeria. The study uses secondary data to source for data from the annual financial statements of the four (4) purposively selected firms based on the availability of data. The selected firms are Cadbury Nigeria Plc, Dangote Sugar Plc, Flour Mills Plc and Honeywell Flour Mill Plc. The fixed effect and random effect models, Hausman test among others were employed for data estimation. The study used the dependent variable of return on asset as the proxy for performance and two explanatory independent variables of short-term loans measured in term of short-term debts to capital employed and long term loan measured in term of long-term debts to total assets, as the proxies for the independent variable of debts financing.

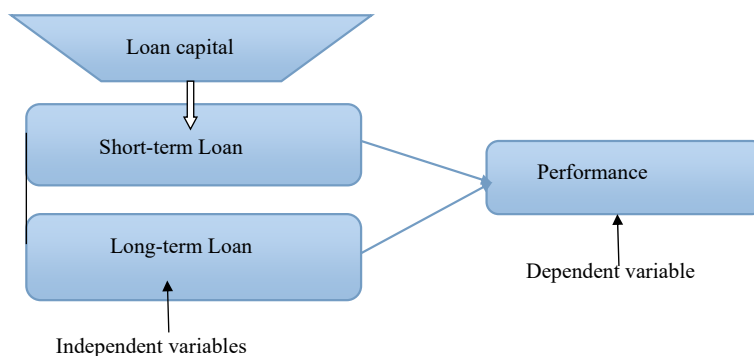


Figure 1 – Conceptual Model of the Study
Source: Author’s Design (2021)

The conceptual model in figure 1 showed the effects of optimizing Loan capital for effective performance of listed foods and beverage firms in Nigeria. The independent variable of loan capital is measured in terms of short-term loan and long-term loan, while the dependent variable of performance is measured in term of return on assets.

Model Specification

This study adopted the model use by Eleje, Okechukwu and Chikanele (2020) who examined “Debt finance and corporate performance: firm level empirical evaluation”. with no further modification. The adopted model is specified in it functional form as follow:

$$ROA = f(LTD, STD) \dots\dots\dots(3.1)$$

where:

- ROA= Return on assets
- LTL = Long term loan
- STL= Short term loan
- β0 = Constant of the regression
- β1... 2 = Coefficient of the explanatory variables
- e = Random error term

Data Analysis and Results

The analysis of panel data obtained is presented here under

Data Estimation and Results

Table 1 – Fixed Effect and Random Effect Models Estimates
SERIES: ROA, LTL, STL

Cross-sectional Period Specific			
	Apriori Sign	Fixed Effect (FE)	Random Effect (RE)
Const		0.100665 ^R 0.0572624 ^{SE} 1.758 ^T 0.0878 ^{P*}	0.114639 ^R 0.0664615 ^{SE} 1.725 ^T 0.0845 ^{P*}
STL_CE	--	0.00839687 ^R 0.117587 ^{SE} 0.07141 ^T 0.9435 ^P	-0.00892638 ^R 0.119568 ^{SE} -0.07466 ^T 0.9405 ^P
LTL_CE	++	0.0751885 ^R 0.109384 ^{SE} 0.6874 ^T 0.4965 ^P	0.0327119 ^R 0.108492 ^{SE} 0.3015 ^T 0.7630 ^P
Robustness & Diagnostic Tests		Chi-square (X ²)	
Hausman Test		4.01947	
Null hypothesis: Breusch-Pagan test		23.4562	
		P-value	
		0.134024	
		1.27788e-006	

Source: Author’s Analysis (2022)

Notes: * = 5% sig. level, R = coefficient, SE = standard error, T = t-values, P = p-values, ROA = return on assets, STL/CE = short-term loan to capital employed and LTL/CE = long-term loan to capital employed.

Table 1 presented the results of both fixed effect and random effect models to determine the effects of the study's independent explanatory variables on performance of the selected firms measured in term of ROA. The Hausman test was also conducted to select the fitted model between fixed effect and random effect. The result of the test showed that the Chi-square of 4.01947 is insignificant at p-value of $0.134024 > 0.05$ level of significant implying that random effect model is more suitable for data analysis in the study than fixed effect. As a result, random effect estimation results are presented and reported for data analysis. In the similar table 1, the results of random effect model revealed that short-term debt has a co-efficient of -0.00892638 and P-value of $0.9405 > 0.05$ level of significant meaning a negative and insignificant effect of short term loan on ROA. Also, long-term debt showed a co-efficient of 0.0327119 and P-value of $0.7630 > 0.05$ level of significant indicating a positive and insignificant of long term loan on ROA.

Discussion of Findings

Findings from this study indicated a negative and insignificant effect of short-term loan on performance of the selected listed food and beverage firms implying that a unit decrease in the value of short-term loan will cause 9% increase in the performance of foods and beverages firms in Nigeria. The result serves as a basis of rejecting the null hypothesis that optimizing short term loan usage has no effect on performance on listed Nigerian foods and beverages companies. This result correlated with the result of the study conducted

Eleje, Okechukwu and Chikanele (2020) where the result revealed that short-term debt sources of finances have no significant positive impact on the corporate performance measured in terms of ROA. Therefore optimizing short-term loan has a negative effect on performance of listed Nigerian foods and beverage firms, thus this study null hypothesis is rejected.

Also, the result showed a positive and insignificant effect of long-term loan on performance of the firms indicating a unit increase in the value of long term loan will lead to 3.3% increase in the performance of food and beverages firms in Nigeria. The result serves as a basis of rejecting the null hypothesis. This result also tallied with the result of the work of Taiwo (2012) which found a positive effect of long-term debt on the selected firms' performance. That means optimizing long-term loan has a positive effect on the performance of listed food and beverage firms in Nigeria, thus this study null hypothesis is rejected.

Conclusion and Recommendation

The outcome from this study showed a mixed results as long-term loan positively affects performance, while short term loan negatively performance of Nigerian listed foods and beverage companies. This implies that reducing the value of short-term loan or increasing the investments level in long term loans by the companies their performances will still be effective and enhanced. However due to the mixed results obtained from the study, further studied should be conducted to cover another range of research periods in many other manufacturing industries in Nigeria.

References

- Akhtar, S; Javed, B; Maryam, A., & Sadia, H., (2012). Relationship between financial leverage and financial performance: Evidence from fuel and energy sector of Pakistan *European Journal of Business and Management* 4(11), 7 – 17.
- Ali, H. H., Badruldeen, A. M. A., Alisha, T. K., Tim, S. (2020). Capital Structure impact on financial performance of Kurdistan Manufacturing Firms'. Summer Workshop Paper 1-22.
- Aniefor, S. J. & Onatuyeh, A. E. (2019). Effect of debt financing on the corporate performance: a study of listed consumer goods firms in Nigeria. *International Journal of Academic Accounting, Finance & Management Research*, 3(5), 26-34: www.ijeais.org/ijaafmr
- Denis, W. N. (2017). The effect of debt financing on financial performance of private secondary schools in Kajiado county, a research project submitted in partial fulfillment of the equipments for the award of the degree of Master of Science in Finance, School of Business, University of Nairobi. 1-52.
- Edori, D. S., Ekweozor, U, C. & Ohaka, J. (2020). Debt financing and firms' financial performance in Nigeria, *Account and Financial Management Journal*, 5(2), 2106-2113.
- Eleje, E. O., Okechukwu, A. E., & Chikanele, E. O. (2020). Debt finance and corporate performance: firm level empirical evaluation. *Archives of Business Research*, 8(1), 94-106.
- Garcis-Teruel, P. J. & Martinez-Solano, P. (2007). Short-term debt in Spanish SMEs. *International Small Business Journal*, 25 (6), 579-602.

Hayam, W. (2013). Debt and financial performance of SMES: the missing role of debt maturity structure. *Corporate Ownership and Control*, 10(3), 354-365.

Harelimana, J.B. (2017). Effect of debt financing on business performance: A comparative study between I&M bank and bank of Kigali, Rwanda. *Global Journal of Management and Business Research: C Finance*, 17(2), 37-45.

Ikapel, O. F. & Kajirwa, I. (2017). Analysis of long term debt and financial performance of state owned sugar firms in Kenya. *International Journal of Commerce and Management Research*, 3(2), 108-111.

Kajirwa, H. I. (2015). Effects of debt on firm performance: A survey of commercial banks listed on Nairobi securities exchange. *Global Journal of Advanced Research*, 2(6), 1025-1029.

Mathewos, W. B. (2016). The impact of capital structure on financial performance of commercial banks in Ethiopia. *Global Journal of Management and Business Research and Finance*, 16(8), 42-52.

Myers, S. C. and N. S. Majluf. (1984). Corporate Financing and Investment Decision when Firms have Information that Investors do not have. *Journal of Finance and Accounting*, 9(7), 36-69.

Omete, F.I. & Isabwa, H. K. (2017). Analysis of long term debt and financial performance of state owned sugar firms in Kenya'. *International Journal of Commerce and Management Research*, 3(2), 108-111. RD – International Instittment

Onchong'a, E. N., Muturi, W. & Atambo, W. (2016). Effects of debt financing on businesses firms financial performance. *International Journal of Social Science and Information Technology*, 2(5), 723-737.

Sohail, A. & Ulfat, A. (2019). 'Effect of debt financing on firm performance: a study on non-financial sector of Pakistan'. *Open Journal of Economics and Commerce*, 2(1), 8-15.

Taiwo, A. (2012). Effect of debt equity financing on firms performance. *Global Journal of Business Research*, 6(1), 17-22.

Tally, H., (2014). An Investigation of effect of financial leverage on firm financial performance in Saudi Arabia's Listed Companies, Victoria Graduate School of Business, Melbourne, Australia, 30-38.