# Shareholder Value Creators in the Agricultural/Agro-Allied Sector of the Nigerian Stock Exchange 2000-2009 

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#### Abstract

In this paper, shareholder value creators for the companies included in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009 was defined and quantified. The shareholder value created by each of the five active companies included in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) was quantified for every year in the period 2000-2009. The study discovered that Okomu Oil Palm is the top shareholder value creator in the sector with N 41.72 per share, followed by Afprint with N20.83, Okitipupa with N20.13, Presco N11.05, and Livestock N1.21 per share. It is also interesting to note that all the stocks created value in 2007 while all destroyed value in 2001, 2002, and 2009. Other years had varied degrees of value creators and value destroyers.


Keywords: shareholder value creation, shareholder value added, shareholder actual return, shareholder required return to equity, Equity market value.

## 1. Introduction

In the investment arena every investor invests to enhance future value of the investment. And the major purpose of investment is to generate periodic income and capital appreciation with passage of time. Investors on financial asset such as equity expect dividend income and capital appreciation from the ordinary shares of which the sum of the two gives the actual total shareholder return to equity. Majority of Nigerian capital market investors avoid investments that relate to agriculture mainly because of the vagaries of weather conditions in the country. The question is does such avoidance connotes poor shareholder value creation from companies that operate in the sector? What actually is the shareholder return and shareholder value creation from these companies? Are they shareholder value creators or shareholder value destroyers? The urge and the need to find out the level of shareholder value creation in these companies necessitated the need for this study. Consequently therefore, the objective of the study is to discover the shareholder value creation capacity of the companies stocks. The outcome of the study will be very useful to investors as to whether to change their minds and adjust their investment portfolio towards Agricultural companies or to maintain their stay-off stance against the sector.

## 2. Literature Review

Allen(2003), Grullon et al (2002), Grullon and Michaely(2002), Lintner(1956), La Porta (2000), Gordon (1959:272-287) argued that investors prefer the early resolution of uncertainty and are willing to pay a higher price for the stock that offers the greatest current dividends, all other things held constant. He reasoned that future dividends are more uncertain and more risky than current dividends to the extent that investors will be affected by the earnings retention rate and dividend payout rate. The end point of his argument is that the market value of a share depends upon the magnitude and timing of cash dividends receivable over the share holding period and the market price realizable upon the disposal of the share. The Gordon's model observes the following assumptions when suggesting that a company that pays a high dividend is less risky than a company that pays a low dividend: investors are risky averse, the firm is all-equity financed, no external finance is available hence retained earnings are used to finance expansion, internal rate of return, $r$ of the firm is constant, cost of capital or discount rate k is constant, that is the model ignores the uncertainty surrounding t he distant dividends, which should be discounted at a higher rate, the firm and its earnings stream are perpetual, corporate taxes do not exist, the growth rate, $g=r b$ is constant forever with constant retention ratio(b), cost of capital must be greater than the growth rate $\mathrm{g}=\mathrm{rb}<\mathrm{k}$. Therefore from the above analysis, Gordon states that the market price of a share is a function of the present value of estimated cash dividend streams and the market price upon disposal of the share.
Walter (1956:29-41) argued that the decision to pay dividends depends on the profitability of investment opportunities available to the firm. Khoury (1983) argued that dividends are no longer an active decision variable but rather a residual sum. Walter (1963:280-291) argued that the choice of dividend policies almost always affect the value of the firm. His works show the relationship between the firm's internal rate of return (r) and its cost of capital ( $k$ ) in determining the dividend policy that will maximize the wealth of shareholders, based on the following assumptions: the firm is all-equity financed, no external finance is available hence retained earnings are used to finance expansion, internal rate of return, $r$ is constant, cost of capital of the firm is constant, all earnings are either distributed as dividends or reinvested internally immediately, the earnings stream are constant forever for determining a given value, the dividends are constant forever for determining a given value, the firm
has perpetual life. Walter posits that the market price per share is the sum of the present values of the perpetual streams of constant dividends and capital gains. In summary, Walter suggests the following options. 1. When $\mathrm{r}>\mathrm{k}$, all earnings should be retained and plough back. 2. When $\mathrm{r}=\mathrm{k}$, dividend or retention policy is irrelevant. 3 . When $\mathrm{r}<\mathrm{k}$, distribute all earnings as dividends to shareholders.
Walter's model is criticized on the following grounds: 1. external financing is excluded even when there is need for it for optimum investment which will maximize the wealth of the shareholders. 2. The Walter's model disregards the relationship between cost of capital and risk. It kept cost of capital constant but a firm's cost of capital changes directly with the firm's risk and can never be constant.
The Bird-In-The-Hand Argument was put forward by Kirshman (1933:737) and supported by Benartzi et al (1997), Bernheim and Adam(1995), Bhattacharya(1979), Brav et al (2005). He argues that of two stocks with identical earnings record and prospects, the one paying a larger dividend than the other would undoubtedly command a higher price merely because stockholders prefer present to future values. Myopic vision plays a part on the price-making process. Stockholders often act upon the principle that a bird in the hand is worth two in the bush and for this reason are willing to pay a premium for the stock with the higher dividend rate, just as they discount the one with the lower rate.
Graham and Dodd (1934:327) followed suit by stating that "the typical investor would most certainly prefer to have his dividend today and let tomorrow take care of itself. No instances are on record in which the withholding of dividends for the sake of future profits has been hailed with such enthusiasm as to advance the price of the stock. The direct opposite has invariably been true. Pandey (1999:755) emphasized that "given two companies in the same general position and with the same earning power, the one paying the larger dividend will always sell at a higher price. Gordon (1962) said that uncertainty increases with futurity, that is, the further one looks into future, the more uncertain dividends become. Thus, distant dividends would be discounted at a higher rate than near dividends. Here it is assumed that the market value of a company's shares depends on the size of dividends paid, the growth rate in dividends and the shareholders required rate of return. It should be understood that the growth rate in dividends depends on how much money is reinvested in the company hence the rate of earnings retention.
When dividend is declared there is normally a drop in the ex-dividend price of a share since the company must finance the dividend payment out of earnings, there will be fewer funds available for reinvestment. Therefore there will be a reduction in future earnings and dividends. If the size of the dividend does not affect the shareholders' view of risk and if the company does not obtain new funds from other sources, the expected fall in the ex-dividend value of the share should be equal to the amount of the current dividend. This is because the future dividends which would have been earned by retaining the current dividend when discounted at the shareholders' cost of capital to a present market value would have the same value as the current dividend. This is based on the assumption that investments would earn a return equal to the shareholder's cost of capital. In support of this argument, Easterbrook(1984), and Porterfield (1959:56-61) suggested that a dividend should be paid if $V_{1}+D_{0} \geq V_{0}$ or $D_{0} \geq V_{o}-V_{1}$ where $V_{o}=$ Market value per share before declaration of dividends, $V_{1}=$ Market value per share after declaration of dividends, $D_{o}=$ Dividend per share declared. This means that a dividend is justifiable provided that it exceeds the fall in share price as a result of the dividend declaration. It follows that the size of a current dividend should be increased until the marginal increment in dividend equals the consequent marginal decline in the ex-dividend value of the firm.
Furthermore, since the purpose of dividend policy is to maximize the wealth of shareholder it is important to consider whether it would be better to pay dividend now subject to tax on income or to retain earnings so as to increase the capital gain on shares which will be subject to capital gains tax when the shareholder eventually sells his shares. When dividends (D) are paid, income to shareholders is $D\left(1-t_{w}\right)$, where $D=$ Amount of Dividend to a shareholder, $\mathrm{t}_{\mathrm{w}}=$ Withholding tax rate on dividends. When earnings are retained so as to achieve capital gain, the income to shareholders is $\left(P_{1}-P_{0}\right)\left(1-t_{c}\right)$, where $P_{1}=$ Future value of the share with capital gain, $\mathrm{P}_{\mathrm{o}}=\quad$ Current value of the share without capital gain, $\mathrm{t}_{\mathrm{c}}=$ Capital gains tax rate. Shareholders would prefer reinvestment of earnings if large after-tax capital gains were obtainable, that is, $\left(\mathrm{P}_{1}-\mathrm{P}_{\mathrm{O}}\right)\left(1-\mathrm{t}_{\mathrm{C}}\right)>$ $D\left(1-t_{w}\right)$. However attempt should be made to maximize the sum of $\left(P_{1}-P_{0}\right)\left(1-t_{C}\right)+D\left(1-t_{w}\right)$.
Modigliani and Miller (1961:411-433) provided the most articulated arguments on the irrelevance of dividend in October 1961 and supported by Fama and Harvey(1968), Miller and Modigliani(1961), Miller and Rock(1985), Miller and Scholes(1982). The M-M hypothesis of dividend irrelevance argued that under a perfect market, taxfree, flotation cost-free and hitch-free share sales situations shareholders are indifferent between dividends and capital gains and the value of a company is determined solely by the earning power of its assets and investments. They argued that if a company with investment opportunities decides to pay a dividend so that retained earnings are insufficient to finance all the investments; obtaining additional funds from outside sources at no transaction costs will make up the shortfall in funds. They are of the view that the consequent loss of value in the existing shares as a result of obtaining outside finance instead of using retained earnings is exactly equal to the amount of the dividend paid. This hypothesis is based on the following assumptions: perfect capital market where investors
act rationally and have access to perfect information, no flotation costs on securities issued by companies and no transaction costs on securities sold by shareholders, a world of no taxes, risk of uncertainty does not exist as investors are perfectly certain on the future investments, profits and dividends of the company. Also one discount rate is appropriate for all securities and all time period. That is internal rate of return (r) equals to cost of capital (k). The company maintains a fixed investment policy.

According to Fernandez et al(2011) to obtain the created shareholder value, we must first define the increase of equity market value, the shareholder value added, the shareholder return, and the required return to equity. The equity market value of a listed company is the company's market value, that is, each share's price multiplied by the number of shares. The increase of equity market value in one year is the equity market value at the end of that year less the equity market value at the end of the previous year. Shareholder value added is the term used for the difference between the wealth held by the shareholders at the end of a given year and the wealth they held the previous year. The shareholder value added is equals to Increase in equity market value plus Dividends paid during the year plus other payments to shareholders (share buybacks....) less Outlays for capital increases less Conversion of convertible debentures. The shareholder return is the Shareholder value added in one year, divided by the equity market value at the beginning of the year. The required return to equity is the sum of the interest rate of long-term Treasury bonds plus a quantity that is usually called the company's risk premium and which depends on its risk. That is, the required return to equity is return of long-term treasury bonds plus risk premium(that is, $R_{e}=R_{f}+\beta\left[R_{m}-R_{f}\right]$ ). In their words, a company creates value for the shareholders when the shareholder return exceeds the share cost (the required return to equity). In other words, a company creates value in one year when it outperforms expectations. Therefore, Created shareholder value is equals to equity market value multiplied by (Shareholder return minus required return to equity). Alternatively, it can be computed as Created shareholder value equals to shareholder value added less (equity market value multiplied by required return to equity).

In summary, Increase of equity market value in one year = Equity market value $e_{t}$ - equity market value $\mathrm{t}_{\mathrm{t}-1}$. Shareholder value added in one year $=$ Increase in equity market value + Dividends paid during the year + Share Repurchases - Outlays for capital increases - Conversion of convertible debentures. Created shareholder value ${ }_{t}=$ shareholder value added ${ }_{t}$ - (equity market value ${ }_{t-1} \mathrm{x}$ required return to equity). How the above arguments reflect on shareholder value in Nigeria setting is of major concern to the researcher and no similar study has been carried out with respect to firms quoted in the Nigerian Stock Exchange.

## 3. Research Methodology

The aim of this work is to quantify the shareholder value created by the five active companies that were listed in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. To achieve this aim, the equity market value per share was computed from the NSE Daily Official list from JanuaryDecember 2000-2009. The dividend per share (DPS) were adopted from the company's annual reports and accounts from 2000-2009 and confirmed from the regulatory agencies such as Securities and Exchange Commission (SEC) and the Nigerian Stock Exchange (NSE). Thereafter, the created shareholder value was obtained from the Fernandez et al (2011) model, the created shareholder value equals to equity market value multiplied by (Shareholder return minus required return to equity).

### 4.0 Data Presentation and Analysis

Table 1: Sectoral Shareholder return, Shareholder value added and created shareholder value

| 1. AFPRINT | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | -33.64 | -18.49 | -48.74 | 49.18 | -29.67 | -45.31 | 140.00 | 466.67 | 18.49 |
| -84.75 |  |  |  |  |  |  |  |  |  |
| Equity Market value(K) | 146 | 119 | 61 | 91 | 64 | 35 | 84 | 476 | 564 |
| Increase in Equity market value(K) | -74 | -27 | -58 | 30 | -27 | -29 | 49 | 392 | 88 |
| Shareholder value added(K) | -74 | -27 | -58 | 30 | -27 | -29 | 49 | 392 | 88 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 |
| Required return to equity $(\mathrm{Ke}) \%$ | 45.16 | 23.84 | 21.95 | 49.24 | 20.75 | 4.82 | -5.03 | 185.01 | -190.24 |
| Risk premium [ $\beta\left(\right.$ Rm $\left.\left.-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 33.16 | 10.89 | 3.07 | 34.22 | 6.54 | -2.18 | -13.83 | 178.1 | -197.52 |
| Shareholder value creation $(\mathrm{K})$ | -115.05 | -50.37 | -43.12 | -0.05 | -32.27 | -17.55 | -121.83 | 1340.70 | 1177.24 |


| 2. LIVESTOCK FEEDS | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | -2.22 | -13.64 | -9.21 | 0.00 | -17.97 | 0.00 | -65.72 | 251.55 | -31.09 |
| Equity Market value(K) | 440 | 380 | 345 | 345 | 283 | 283 | 97 | 341 | 235 |
| Increase in Equity market value(K) | -10 | -60 | -35 | 0 | -62 | 0 | -186 | 244 | -106 |


| Shareholder value added(K) | -10 | -60 | -35 | 0 | -62 | 0 | -186 | 244 | -106 | -181 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Required return to equity $(\mathrm{Ke}) \%$ | 12.78 | 14.70 | 18.88 | 24.59 | 14.21 | 7.00 | 30.35 | 142.56 | $(165.88)$ | $(61.66)$ |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f})}\right)\right]$ | .78 | 1.77 | 0.00 | 9.57 | 0.00 | 0.00 | 21.55 | 135.65 | $(173.16)$ | $(64.11)$ |
| Shareholder value creation $(\mathrm{K})$ | $(66)$ | $(107.69)$ | $(96.91)$ | $(84.84)$ | $(91.07)$ | $(19.81)$ | $(93.19)$ | 371.66 | 316.76 | $(8.29)$ |


| 3. OKITIPUPA OIL PALM | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | -14.13 | -13.92 | 0.00 | -7.35 | 6.35 | 32.84 | 6.74 | 157.89 | 180.41 | -4.95 |
| Equity Market value $(\mathrm{K})$ | 79 | 68 | 68 | 63 | 67 | 89 | 95 | 245 | 687 | 653 |
| Increase in Equity market value(K) | -13 | -11 | 0 | -5 | 4 | 22 | 6 | 150 | 442 | -34 |
| Shareholder value added $(\mathrm{K})$ | -13 | -11 | 0 | -5 | 4 | 22 | 6 | 150 | 442 | -34 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Required return to equity $(\mathrm{Ke}) \%$ | 14.33 | 12.44 | 18.88 | 13.18 | 13.90 | 7.69 | 6.99 | $(12.01)$ | $(65.78)$ | 2.06 |
| Risk premium [ $\left.\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 2.33 | $(.51)$ | 0 | $(1.84)$ | $(.31)$ | .69 | $(1.81)$ | $(18.92)$ | $(73.06)$ | $(.39)$ |
| Shareholder value creation $(\mathrm{K})$ | $(22.48)$ | $(17.92)$ | $(12.84)$ | $(12.93)$ | $(5.06)$ | 22.38 | $(.24)$ | 416.26 | 1691.33 | $(45.78)$ |


| 4. OKOMU OIL PALM | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | 55.06 | -20.74 | -23.26 | 58.48 | 57.11 | 20.95 | 105.03 | 12.22 | -12.92 | -29.19 |
| Equity Market value(K) | 1249 | 950 | 684 | 984 | 1446 | 1649 | 3381 | 3794 | 3279 | 2292 |
| Increase in Equity market value(K) | 379 | -299 | -266 | 300 | 462 | 203 | 1732 | 413 | -515 | -987 |
| Shareholder value added(K) | 479 | -259 | -221 | 400 | 562 | 303 | 1732 | 413 | -490 | -957 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Required return to equity $(\mathrm{Ke}) \%$ | 42.06 | 7.12 | 28.45 | 87.52 | 16.86 | 5.89 | 35.56 | 80.73 | $(7.86)$ | 1.28 |
| Risk premium [ $\left.\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 30.06 | $(5.83)$ | 9.57 | 72.50 | 2.65 | $(1.11)$ | 26.76 | 73.82 | $(15.14)$ | $(1.17)$ |
| Shareholder value creation $(\mathrm{K})$ | 162.37 | $(264.67)$ | $(353.70)$ | $(285.75)$ | 582.02 | 248.34 | 2348.78 | $(2599.27)$ | $(165.92)$ | $(698.37)$ |


| 5. PRESCO | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return $\%$ | NA | NA | NA | 119.81 | -9.06 | 27.78 | -4.66 | 23.83 | -7.68 | -53.53 |
| Equity Market value(K) | NA | NA | NA | 1104 | 954 | 1159 | 1045 | 1289 | 1160 | 519 |
| Increase in Equity market value(K) | NA | NA | NA | 579 | -150 | 205 | -114 | 244 | -129 | -641 |
| Shareholder value added(K) | NA | NA | NA | 629 | -100 | 265 | -54 | 249 | -99 | -621 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | NA | NA | NA | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Required return to equity $(\mathrm{Ke}) \%$ | NA | NA | NA | 33.05 | 14.44 | 3.17 | 24.00 | 18.91 | $(35.50)$ | $(53.45)$ |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | NA | NA | NA | 18.03 | .23 | $(3.83)$ | 15.20 | 12.00 | $(42.78)$ | $(55.90)$ |
| Shareholder value creation $(\mathrm{K})$ | NA | NA | NA | 957.83 | $(224.19)$ | 285.23 | $(299.5)$ | 63.42 | 322.71 | $(.42)$ |

Table 2: Ranked order of Shareholder value creators and Shareholder value destroyers

| Stocks | 2000 | Stocks | 2001 | Stocks | 2002 | Stocks | 2003 | Stocks | 2004 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Okomu | 162.37 | Okitipupa | -17.92 | Okitipupa | -12.84 | Presco | 957.83 | Okomu | 582.02 |
| Okitipupa | -22.48 | Afprint | -50.37 | Afprint | -43.12 | Afprint | -0.05 | Okitipupa | -5.06 |
| Livestock | -66 | Livestock | -107.69 | Livestock | -96.91 | Okitipupa | -12.93 | Afprint | -32.27 |
| Afprint | -115.05 | Okomu | -264.67 | Okomu | -353.7 | Livestock | -84.84 | Livestock | -91.07 |
| Presco | NA | Presco | NA | Presco | NA | Okomu | -285.75 | Presco | -224.19 |


| Stocks | 2005 | Stocks | 2006 | Stocks | 2007 | Stocks | 2008 | Stocks | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Presco | 285.23 | Okomu | 2348.78 | Okomu | 2599.27 | Okitipupa | 1691.33 | Presco | -0.42 |
| Okomu | 248.34 | Okitipupa | 0.24 | Afprint | 1340.70 | Afprint | 1177.24 | Livestock | -8.29 |
| Okitipupa | 22.38 | Livestock | -93.19 | Okitipupa | 416.26 | Presco | 322.71 | Okitipupa | -45.78 |
| Afprint | -17.55 | Afprint | -121.83 | Livestock | 371.66 | Livestock | 316.76 | Afprint | -54.49 |
| Livestock | -19.81 | Presco | -299.50 | Presco | 63.42 | Okomu | -165.92 | Okomu | -698.37 |

In this paper the researcher quantified shareholder value creation for the companies quoted in Agricultural/Agroallied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. Shareholder value created is defined according to Fernandez (2004). A company creates value for the shareholders when the shareholder return exceeds the shareholder required return to equity. In other words, a company creates value in one year when it outperforms expectations; hence the created shareholder value is quantified as equity market value multiplied by the difference between the shareholder return and the cost of equity capital. As shareholder return is equal to shareholder value added divided by the equity market value, the created shareholder value can also be calculated as shareholder value added minus the product of equity market value multiplied by the cost of equity capital.

Table 4.1 shows the shareholder return in percent, equity market value in kobo, increase in equity market value in kobo, shareholder value added in kobo, risk-free return in percent, required return to equity in percent, risk
premium in percent, and shareholder value created in kobo for the five active companies namely; Afprint, Livestock feeds, Okitipupa, Okomu, and Presco listed in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. The details of the computation for each year are shown in the appendix.

Table 4.2 shows the shareholder value creators and the shareholder value destroyers. The average annual returns of the Agricultural/Agro-allied sector for the period 2000-2009 are 1.27, -16.70, -20.30, 44.02, 1.35, 7.25, 36.28, 182.43, 29.44, -49.49 percent respectively. Out of the five companies only Okomu oil palm made a positive return of 55.06 percent in year 2000 while all the companies made positive return in 2007. The highest return of 466.67 percent for the 2007 was made by Afprint while the poorest and lowest return of -84.75 percent was made by Afprint in 2009 followed by Livestock feeds with -77.02 percent in 2009. The year 2009 was a very bad one to the companies in terms of shareholder return, as Afprint made $-84.75 \%$, Livestock feeds made $-77.02 \%$, Presco made $-53.53 \%$, Okomu made $-29.19 \%$, and Okitipupa made $-4.95 \%$.

In monetary term, Okomu oil palm commanded the highest equity market value in 2004 through 2009 peaking at N37.94 in 2007. Presco led in 2003 with N11.04 while Okomu maintained its lead in 2000-2002 with N12.49, N9.50, and N6.84 respectively. Therefore within the period under study Okomu clinched the most valued equity stock position in the sector. In terms of rate of appreciation of the stocks, Okomu was the only stock that had positive price appreciation rate in 2000 of $3.72 \%$ while others had negative movements. In 2001, two stocks(Livestock and Okitipupa) were stagnant in price movement while Afprint and Okomu had negative rates of appreciation. The 2004, 2006, 2007, and 2008 showed that all the stocks appreciated in their prices in different positive rates of appreciation. The average monthly rates of return of the sector for the period 20002009 were $-0.20,-1.91,-1.22,1.34,1.08,0.64,1.25,7.02,0.87$, and -6.04 percent respectively while the market monthly rates of return were $3.16,3.19,0.59,4.32,1.43,0.33,2.62,4.42,-4.88$, and -3.05 percent for the equivalent period. Hence it is obvious that the market outperformed the Agricultural/Agro-allied sector for the period 2000-2009 on monthly return.

In shareholder value added, Afprint added positive values in 2006-2008 to the tune of N0.49, N3.92, and N0.88 per share respectively; Livestock feeds added positively only in 2007 to the tune of N2.44 per share; Okitipupa added 4kobo, 22 kobo, 6 kobo, 150 kobo, and 442 kobo in 2004-2008 respectively; Okomu added 479 kobo, 400 kobo, 562 kobo, 303 kobo, 1732 kobo, 413kobo per share in 2000, 2003-2007 respectively; and Presco added 629 kobo, 265 kobo, and 249 kobo per share in 2003, 2005, and 2007 respectively. Hence Okomu oil palm led the pack in shareholder value added per share within the period of study.

The actual shareholder return of Afprint were -33.64, -18.49, -48.74, 49.18, -29.67, -45.31, 140.00, 466.67, 18.49 , and -84.75 percent for the period while the required shareholder return were $45.16,23.84,21.95,49.24$, 20.75, 4.82, $-5.03,185.01,-190.24,-21.39$ percent, hence Afprint approximately met its target return in 2003, surpassed its target return in 2006, 2007, and 2008 as can be seen from the above data. On the other hand, the actual shareholder return of Livestock feeds for the period 2000-2009 were $-2.22,-13.64,-9.21,0.00,-17.97$, $0.00,-65.72,251.55,-31.09,-77.02$ percent against its equity required return of $12.78,14.70,18.88,24.59$, $14.21,7.00,30.35,142.56,-165.88,-61.11$ percent. This shows that Livestock feeds could meet and surpass its target return only in one year(2007) out of the ten-year period.

Moreover, in the same measure Okitipupa generated actual shareholder return of 32.84 percent in 2005 to surpass its target shareholder return of 7.69 percent, 157.89 percent in 2007 to surpass its target return of -12.01 percent, 180.41 percent in 2008 to exceed its 2008 target return of -65.78 percent. Okomu exceeded its target return in four years namely, 2000:55.06\% against the target of $42.06 \% ; 2004: 57.11 \%$ against the target of $16.86 \%$ : 2005:20.95\% against the target of $5.89 \% ; 2006: 105.03 \%$ against the target of $35.56 \%$. Presco hit and exceeded its target return in 2003, 2005, 2007, 2008, and approximately in 2009---almost five years records. This indicates that in terms of return to equity the two stocks( Okomu and Presco) are the best quality stocks in the sector.

Furthermore, on the ground of shareholder value creation three stocks namely Afprint, Livestock feeds, and Okitipupa oil palm produced positive value creation in years 2007, and 2008 to the tune of N13.41 and N11.77 per share for Afprint, N3.72 and N3.17 per share for Livestock feeds, N4.16 and N16.91 per share for Okitipupa respectively while other years have negative value creation. Okomu created shareholder value for four years to the tune of N1.62, N5.82, N2.48, and N23.49 per share in years 2000, 2004, 2005, 2006 respectively. Presco created N9.58, N2.85, N0.63, N3.23 per share in years 2003, 2005, 2007, and 2008 respectively.

Table 2 shows the shareholder value creators and the shareholder value destroyers in the sector. The only company that created shareholder value in 2000 is Okomu while Okitipupa, Livestock, Afprint were the shareholder value destroyers in the year. In 2001, 2002, and 2009 all the companies in the sector were shareholder value destroyers while in 2007 they were all shareholder value creators. Only Presco was value creator in 2003 with N9.58 per share and only Okomu in 2004 with N5.82 per share. In 2005 Presco topped the shareholder value creators list with N 2.85 per share, closely followed by Okomu with N 2.48 per share and Okitipupa with N0.22 per share. In 2006 and 2007 Okomu took the first position in shareholder value creators with N23.49 per share in 2006 and N25.99 per share in 2007, followed by Afprint in 2007 with N13.41 per share, Okitipupa(N4.16 per share), Livestock(N3.72 per share), and Presco(N0.63 per share). In 2008 Okitipupa took the lead with N16.91 shareholder value creation per share, Afprint had N11.77 per share, Presco N3.23 per share, Livestock N3.17 per share while Okomu came last in the table with negative shareholder value creation of -N 1.66 per share.

### 5.0 Summary of findings and Conclusions

In this work attempts were made to discover the shareholder value creation of the active companies quoted in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. In the process we defined and quantified shareholder value created, shareholder value added, shareholder return, shareholder required return to equity and other relevant data. The study revealed that only Okomu which constitutes $25 \%$ and $20 \%$ of the population of the active stocks in the sector created value in 2000, 2004, 2005, 2006 and only Presco which constitutes $20 \%$ of the population created shareholder value in 2003. All the stocks created negative shareholder value in 2001, 2002, and 2009 while all the stocks created positive shareholder value in 2007. Therefore, in terms of equity shareholder value creation, Okomu oil palm stands as the most active quality stock in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009, followed by Presco.

In conclusion, Okomu oil palm is the best shareholder value creator in the Agricultural/Agro-allied sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009, followed by Presco while Afprint, Livestock feeds, and Okitipupa oil palm were majorly the shareholder value destroyers in the period under study.

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## APPENDIX

| 1. Afprint | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Market Average Price [MAP]kobo | 220 | 146 | 119 | 61 | 91 | 64 | 35 | 84 | 476 | 564 | 86 |
| Equity Market Value (EMV) ${ }_{\text {t }}$ | 220 | 146 | 119 | 61 | 91 | 64 | 35 | 84 | 476 | 564 | 86 |
| Increase in Equity Market Value |  | -74 | -27 | -58 | 30 | -27 | -29 | 49 | 392 | 88 | -478 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added $_{\mathbf{t}}$ (SVA) |  | -74 | -27 | -58 | 30 | -27 | -29 | 49 | 392 | 88 | -478 |
| Shareholder return, $\mathbf{R}=$ SVA/ EMV) ${ }_{t-1}$ |  | -33.64 | $18.49$ | $48.74$ | 49.18 | $29.67$ | $45.31$ | 140.00 | 466.67 | 18.49 | $84.75$ |
| Market return(Rm) |  | 37.91 | 38.28 | 7.07 | 51.82 | 17.13 | 4.01 | 31.48 | 53.05 | -58.54 | $36.64$ |
| $\mathbf{R}_{\mathbf{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| $\mathbf{R m}$ - $\mathbf{R}_{\mathbf{f}}$ |  | 25.91 | 25.33 | $11.81$ | 36.80 | 2.82 | -2.99 | 22.68 | 46.14 | -65.82 | $39.09$ |
| Stock beta ( $\boldsymbol{\beta}$ ) |  | 1.28 | 0.43 | -0.26 | 0.93 | 2.32 | 0.73 | -0.61 | 3.86 | 3.00 | 0.61 |
| Risk premium [ $\boldsymbol{\beta}\left(\mathbf{R m}-\mathbf{R}_{\mathbf{f}}\right)$ ]\% |  | 33.16 | 10.89 | 3.07 | 34.22 | 6.54 | -2.18 | -13.83 | 178.1 | -197.52 | $23.84$ |
| Required return to equity (Ke) |  | 45.16 | 23.84 | 21.95 | 49.24 | 20.75 | 4.82 | -5.03 | 185.01 | -190.24 | $21.39$ |
| $\mathbf{R}$ - Ke |  | -78.80 | $42.33$ | $70.69$ | -0.06 | $50.42$ | $50.13$ | 145.03 | 281.66 | 208.73 | $63.36$ |
| (EMV) ${ }_{\text {c }}$ ( R - Ke) |  | $115.05$ | $50.37$ | $43.12$ | -0.05 | $32.27$ | $17.55$ | $121.83$ | 1340.70 | 1177.24 | $54.49$ |
| Created Shareholder Valuet |  | $115.05$ | $50.37$ | $43.12$ | -0.05 | $32.27$ | $17.55$ | $121.83$ | 1340.70 | 1177.24 | $54.49$ |


| 2. Livestock Feeds | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Market Average Price [MAP]kobo | 450 | 440 | 380 | 345 | 345 | 283 | 283 | 97 | 341 | 235 | 54 |
| Equity Market Value (EMV) | 450 | 440 | 380 | 345 | 345 | 283 | 283 | 97 | 341 | 235 | 54 |
| Increase in Equity Market Value |  | -10 | -60 | -35 | 0 | -62 | 0 | -186 | 244 | -106 | -181 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{t}$ (SVA) |  | -10 | -60 | -35 | 0 | -62 | 0 | -186 | 244 | -106 | -181 |
| $\begin{aligned} & \text { Shareholder return = SVA/ } \\ & \text { EMV) } \end{aligned}$ |  | -2.22 | -13.64 | -9.21 | 0.00 | -17.97 | 0.00 | -65.72 | 251.55 | -31.09 | -77.02 |
| Market return(Rm) |  | 37.91 | 38.28 | 7.07 | 51.82 | 17.13 | 4.01 | 31.48 | 53.05 | -58.54 | -36.64 |
| Rf |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Rm - Rf |  | 25.91 | 25.33 | -11.81 | 36.80 | 2.82 | -2.99 | 22.68 | 46.14 | -65.82 | -39.09 |
| Stock beta ( $\boldsymbol{\beta}$ ) |  | 0.03 | 0.07 | 0.00 | 0.26 | 0.00 | 0.00 | 0.95 | 2.94 | 2.63 | 1.64 |
| Risk premium [ $\boldsymbol{\beta}(\mathbf{R m}$ - $\left.\left.\mathbf{R}_{f}\right)\right] \%$ |  | . 78 | 1.77 | 0.00 | 9.57 | 0.00 | 0.00 | 21.55 | 135.65 | (173.16) | (64.11) |
| Required return to equity (Ke) |  | 12.78 | 14.70 | 18.88 | 24.59 | 14.21 | 7.00 | 30.35 | 142.56 | (165.88) | (61.66) |
| (R-Ke)\% |  | (15) | (28.34) | (28.09) | (24.59) | (32.18) | (7) | (96.07) | 108.99 | 134.79 | (15.36) |
| (EMV)t. (R - Ke) |  | (66) | (107.69) | (96.91) | (84.84) | (91.07) | (19.81) | (93.19) | 371.66 | 316.76 | (8.29) |
| Created Shareholder Valuet |  | (66) | (107.69) | (96.91) | (84.84) | (91.07) | (19.81) | (93.19) | 371.66 | 316.76 | (8.29) |


| 3. Okitipupa Oil Palm | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 92 | 79 | 68 | 68 | 63 | 67 | 89 | 95 | 245 | 687 | 653 |
| Equity Market Value (EMV) ${ }_{\text {t }}$ | 92 | 79 | 68 | 68 | 63 | 67 | 89 | 95 | 245 | 687 | 653 |
| Increase in Equity Market Value |  | -13 | -11 | 0 | -5 | 4 | 22 | 6 | 150 | 442 | -34 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added $_{\mathbf{t}}$ (SVA) |  | -13 | -11 | 0 | -5 | 4 | 22 | 6 | 150 | 442 | -34 |
| Shareholder return = SVA/ EMV) ${ }_{\text {t-1 }}$ |  | -14.13 | -13.92 | 0.00 | -7.35 | 6.35 | 32.84 | 6.74 | 157.89 | 180.41 | -4.95 |
| Market return(Rm) |  | 37.91 | 38.28 | 7.07 | 51.82 | 17.13 | 4.01 | 31.48 | 53.05 | -58.54 | -36.64 |
| $\mathbf{R}_{\mathbf{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Rm - $\mathbf{R}_{\mathbf{f}}$ |  | 25.91 | 25.33 | -11.81 | 36.80 | 2.82 | -2.99 | 22.68 | 46.14 | -65.82 | -39.09 |
| Stock beta ( $\beta$ ) |  | 0.09 | -0.02 | 0.00 | -0.05 | -0.11 | -0.23 | -0.08 | -0.41 | 1.11 | 0.01 |
| Risk premium [ $\beta\left(\mathbf{R m}\right.$ - $\left.\mathbf{R}_{\mathrm{f}}\right)$ ]\% |  | 2.33 | (.51) | 0 | (1.84) | (.31) | . 69 | (1.81) | (18.92) | (73.06) | (.39) |
| Required return to equity (Ke) |  | 14.33 | 12.44 | 18.88 | 13.18 | 13.90 | 7.69 | 6.99 | (12.01) | (65.78) | 2.06 |
| $\mathbf{R}$ - Ke |  | (28.46) | (26.36) | (18.88) | (20.53) | (7.55) | 25.15 | (.25) | 169.90 | 246.19 | (7.01) |
| (EMV)t. (R - Ke) |  | (22.48) | (17.92) | (12.84) | (12.93) | (5.06) | 22.38 | (.24) | 416.26 | 1691.33 | (45.78) |
| Created Shareholder Valuet |  | (22.48) | (17.92) | (12.84) | (12.93) | (5.06) | 22.38 | (.24) | 416.26 | 1691.33 | (45.78) |


| 4. Okomu Oil Palm | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Market Average Price [MAP]kobo | 870 | 1249 | 950 | 684 | 984 | 1446 | 1649 | 3381 | 3794 | 3279 | 2292 |
| Equity Market Value (EMV) | 870 | 1249 | 950 | 684 | 984 | 1446 | 1649 | 3381 | 3794 | 3279 | 2292 |
| Increase in Equity Market Value |  | 379 | -299 | -266 | 300 | 462 | 203 | 1732 | 413 | -515 | -987 |
| +Dividends paid during the year |  | 100 | 40 | 45 | 100 | 100 | 100 | 0 | 0 | 25 | 30 |
| +Share <br> Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }^{\text {(SVA) }}$ |  | 479 | -259 | -221 | 400 | 562 | 303 | 1732 | 413 | -490 | -957 |
| Shareholder return $=$ SVA/ EMV) ${ }_{\mathbf{t}-1}$ |  | 55.06 | -20.74 | -23.26 | 58.48 | 57.11 | 20.95 | 105.03 | 12.22 | -12.92 | -29.19 |
| Market return(Rm) |  | 37.91 | 38.28 | 7.07 | 51.82 | 17.13 | 4.01 | 31.48 | 53.05 | -58.54 | -36.64 |
| $\mathbf{R f}_{\text {f }}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Rm - $\mathbf{R}_{\mathbf{f}}$ |  | 25.91 | 25.33 | -11.81 | 36.80 | 2.82 | -2.99 | 22.68 | 46.14 | -65.82 | -39.09 |
| Stock beta ( $\boldsymbol{\beta}$ ) |  | 1.16 | -0.23 | -0.81 | 1.97 | 0.94 | 0.37 | 1.18 | 1.60 | 0.23 | 0.03 |
| Risk premium [ $\left.\boldsymbol{\beta}\left(\mathbf{R m}-\mathbf{R}_{\mathrm{f}}\right)\right] \%$ |  | 30.06 | (5.83) | 9.57 | 72.50 | 2.65 | (1.11) | 26.76 | 73.82 | (15.14) | (1.17) |
| Required return to equity (Ke) |  | 42.06 | 7.12 | 28.45 | 87.52 | 16.86 | 5.89 | 35.56 | 80.73 | (7.86) | 1.28 |
| R-Ke |  | 13 | (27.86) | (51.71) | (29.04) | 40.25 | 15.06 | 69.47 | (68.51) | (5.06) | (30.47) |
| (EMV) . (R-Ke) |  | 162.37 | (264.67) | (353.70) | (285.75) | 582.02 | 248.34 | 2348.78 | (2599.27) | (165.92) | (698.37) |
| Created <br> Shareholder Valuet |  | 162.37 | (264.67) | (353.70) | (285.75) | 582.02 | 248.34 | 2348.78 | (2599.27) | (165.92) | (698.37) |


| 5. Presco | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Market Average Price [MAP]kobo | - | - | - | 525 | 1104 | 954 | 1159 | 1045 | 1289 | 1160 | 519 |
| Equity Market Value (EMV)t | - | - | - | 525 | 1104 | 954 | 1159 | 1045 | 1289 | 1160 | 519 |
| Increase in Equity Market Value |  | - | - | 0 | 579 | -150 | 205 | -114 | 244 | -129 | -641 |
| +Dividends paid during the year |  | - | - | 50 | 50 | 50 | 60 | 60 | 5 | 30 | 20 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{\text {t }}$ (SVA) |  | - | - | - | 629 | -100 | 265 | -54 | 249 | -99 | -621 |
| Shareholder return = SVA/ EMV) ${ }_{\text {t-1 }}$ |  | - | - | - | 119.81 | -9.06 | 27.78 | -4.66 | 23.83 | -7.68 | -53.53 |
| Market return(Rm) |  | - | - | - | 51.82 | 17.13 | 4.01 | 31.48 | 53.05 | -58.54 | -36.64 |
| $\mathbf{R f}_{\text {f }}$ |  | - | - | - | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 7.28 | 2.45 |
| Rm - $\mathbf{R}_{\text {f }}$ |  | - | - | - | 36.80 | 2.82 | -2.99 | 22.68 | 46.14 | -65.82 | -39.09 |
| Stock beta ( $\boldsymbol{\beta}$ ) |  | - | - | - | 0.49 | 0.08 | 1.28 | 0.67 | 0.26 | 0.65 | 1.43 |
| Risk premium [ $\mathbf{\beta}\left(\mathbf{R m}-\mathbf{R}_{\mathbf{f}}\right)$ ]\% |  | - | - | - | 18.03 | . 23 | (3.83) | 15.20 | 12.00 | (42.78) | (55.90) |
| Required return to equity (Ke) |  | - | - | - | 33.05 | 14.44 | 3.17 | 24.00 | 18.91 | (35.50) | (53.45) |
| R-Ke |  | - | - | - | 86.76 | (23.5) | 24.61 | (28.66) | 4.92 | 27.82 | (0.08) |
| (EMV) ${ }_{\text {t }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | $\square$ | - | - | 957.83 | (224.19) | 285.23 | (299.5) | 63.42 | 322.71 | (.42) |
| Created Shareholder Value ${ }_{\text {t }}$ |  | - | $\cdot$ | - | 957.83 | (224.19) | 285.23 | (299.5) | 63.42 | 322.71 | (.42) |

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